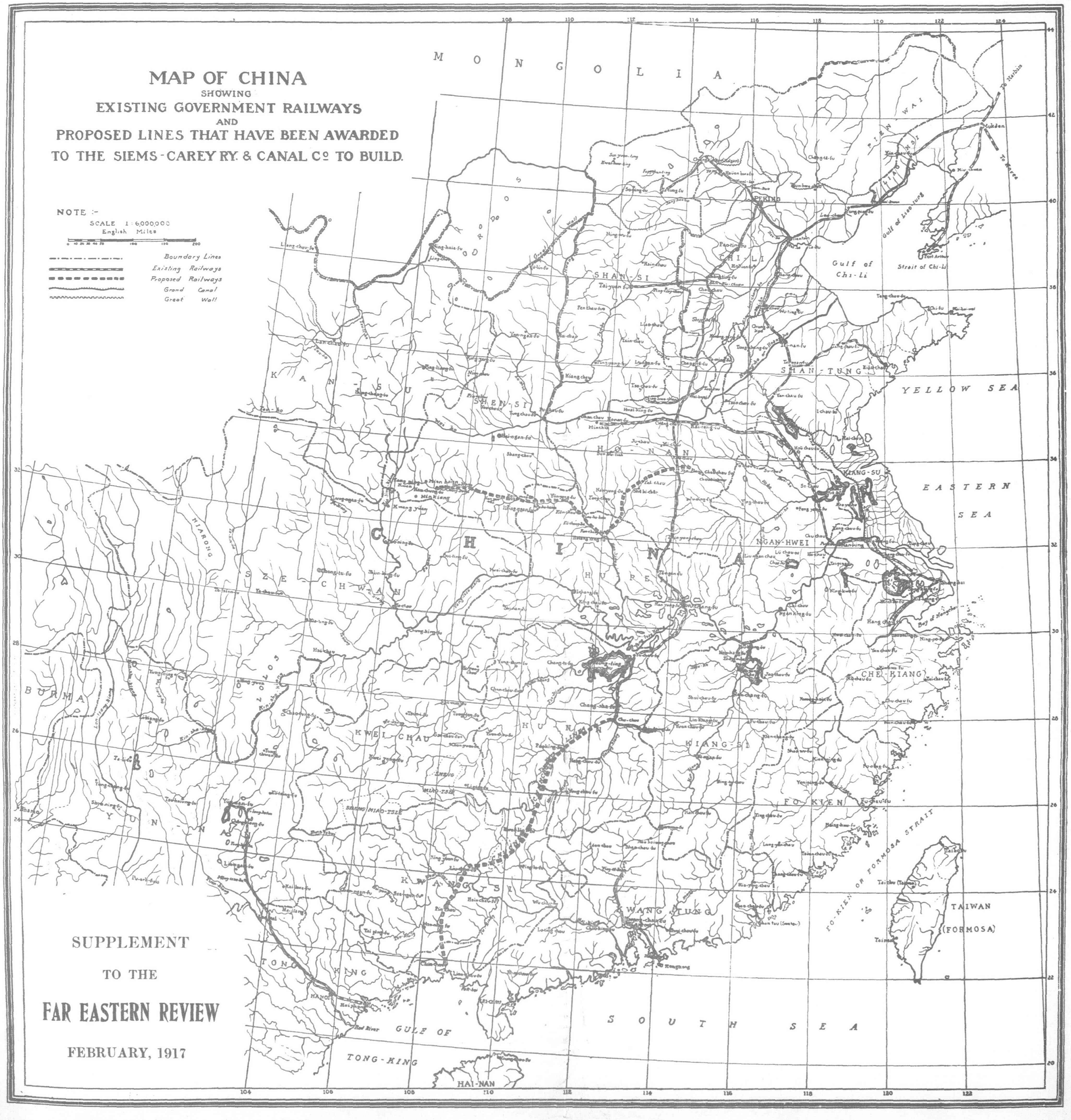

MAP OF CHINA
SHOWING
EXISTING GOVERNMENT RAILWAYS
AND
PROPOSED LINES THAT HAVE BEEN AWARDED
TO THE SIEMS-CAREY RY. & CANAL Co. TO BUILD.

SUPPLEMENT

TO THE

FAR EASTERN REVIEW

FEBRUARY, 1917

THE FAR EASTERN REVIEW

COMMERCE :-: ENGINEERING :-: FINANCE

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Part of Foreign and Chinese Engineering Staff of the Siems-Carey Railway and Canal Co. Mr. Taoyu E. Sun, the Managing Director of the Railway, in center standing between Mr. L. J. Buckner, Auditor (on right) and Mr. George Kyle, Chief Engineer

ANOTHER AMERICAN RAILWAY PROJECT

From Honan Province into Hupeh and Shensi Provinces

It is gratifying to note that the Siems-Carey Railway and Canal Company, which recently secured a contract designed to provide Kwangsi Province with its first railway communication, means serious business in China. Hardly had arrangements been made to despatch survey parties into Kwangsi than the Chinese Government arranged with the Company for the construction of another line into regions entirely lacking adequate means of transportation for their products. The proposed line will traverse a rich part of Honan Province, part of the north of Hupeh Province, and will then run into the south of Shensi—another province so far innocent of railway communication—by way of the upper Han River valley.

For the time being the eastern terminal of the proposed line is at Chowkiakow, on the Tasha river, in Honan, whence the line will strike direct to Yencheng, on the railway now connecting Peking with Hankow. Thence it will run southwestwards, via Nanyangfu, to Siangyangfu, on the Han River, in Hupeh Province. From there it will follow the Han River valley into Shensi Province, the terminal being the city of Hanchungfu. At a later date it is possible that some modification may be made in this route in favor of a continuation of the railway now under construction between Pukow, on the Yangtse River, and Sinyang, on the existing railway between Hankow and Peking, to Siangyangfu. If this logical development of the Pukow-Sinyang railway is carried out it will give this line the importance of a trunk system extending north of the Yangtsze from Pukow into Shensi Province, and maybe later into remote Szechuan, a consummation devoutly to be wished by every one of the 70,000,000 in this rich province and also by those interested in the railway. The reason why the extension from Sinyang westwards was not immediately proposed to the American company is that the British and Chinese Corporation, who hold the contract for the construction of the Pukow-Sinyang railway, have thought about carrying out the work, but owing to the war they will undoubtedly be glad for the American Company to take it in charge. Since it would seem to be in the best interests of all parties, the Chinese, British and Americans, that this line be constructed before a northerly one from Yencheng to Siangyang is undertaken, it is likely that the British, in view of the changed conditions owing to the war, and the more important financial stringency, will gladly acquiesce in the proposal to allow the Americans to effect the connexion. Work on the Pukow-Sinyang line was, it may be explained, under way when the war broke out, but owing to lack of funds a halt had to be called. When the war is over, and if financial arrangements can be made, construction will be resumed, but it is problematical if ever the money will be forthcoming from British sources for a continuation of the line westwards beyond Sinyang. The British have to provide a considerable amount of capital for contracts already in hand and it is certain that their resources will be stretched to the utmost to make this provision without undertaking new projects. It is logical, therefore, to suppose that they will welcome American money to build an extension which will tremendously enhance the future value of their line, and if this is done we can expect a modification of the new contract to cut out the line from Yencheng south to Siangyang, at least for many years, and substitute in its place the direct one from Sinyang westwards.

In the meantime survey parties will set out to cover the route from Yencheng eastwards to Chowkiakow, and south-westwards from Yencheng to Nanyangfu. From the latter city a reconnaissance party will report on the route to Siangyangfu. The valley of the Han River into Shensi will be examined later. From Chowkiakow to Nanyangfu the country raises large crops of cereals, particularly beans and sesamum seed, and there are excellent prospects for the commercial success of any railway built through the region. The traffic passing at present between Chowkiakow and the railway at Yencheng warrants in itself a line of railroad, and when that is built the demand is likely quickly to arise for a further extension eastwards to the prefectural city of Chenchow and on to Pochow. The whole of this area is rich in agriculture. The same may be said of the bulk of the country west of the Peking-Hankow line towards Nanyangfu, and even if the more ambitious proposal is proceeded with it would appear advisable to provide Nanyangfu and the territory northwards with proper transportation facilities. Should the line be carried on, as now proposed, to Sianyangfu and beyond, it will make that city something of a railway centre in future years, for the German line from Hankow is destined to touch there, and likewise a connexion is sure to be built sometime or other with Sinyang.

At the moment Siangyang is near the head of navigation on the Han River, and can be reached by small launches. Quite a large junk traffic is maintained, and in summer freshets small junks even traverse the Han River as far as Hanchungfu, the terminus of the proposed line, some 600 miles from Hankow. Produce brought by rail from the Nanyang region could therefore be transhipped at Siangyang and be sent down stream by boat, if a long rail haul is objectionable and if the Hankow market or wharfage is desired. The average minimum speed of the river from Siangyang is about three miles per hour, thus the 300 miles to Hankow is negotiable in reasonable time even by junks. It is interesting to recall at this stage that Siangyang was once the objective of a railway which the Peking Syndicate contemplated building from their mines north of the Yellow River, their aim being to secure a point of navigation for the transhipment of their coal. An examination of the river showed, however, that while the stream might be available for ordinary merchandise carried in small launches or junks it was too small to permit of the regular use of spacious barges capable of carrying large quantities of coal, and consequently the project was abandoned.

The Han River is, of course, the only artery into southern Shensi, and despite its rapids above Siangyang boatmen ply on it as long as water permits, and, by taking advantage of freshets and floods, they manage to push right up to Hanchungfu, the journey from Hankow, some 1,120 miles, taking sixty days, and down fifteen days. By road from Hankow the distance is but 620 miles, but when the mountains are entered the "road" is but a track over which nothing but pack animals can convey goods.

In commenting upon the Han River valley route for merchandise into Shensi and Szechuan, Baron Richthofen, the famous geologist, gives the following distances, as obtained from native boat captains who ply on the river:

From Sinpuwan (westwards of Hanchungfu) to Tzeyang	1200 li.
From Tzeyang to Laohokow	1200 li.
From Laohokow to Fancheng	150 li.
From Fancheng to Hankow	1240 li.
Total navigable length of river	3790 li.

A li is generally regarded throughout China as one-third of a mile. "The total distance," Richthofen hazards, "is probably more than that from Shanghai to Ichang, on the Yangtsze. In the first 1,200 li, rapids are frequent and dangerous, the boats are therefore very small. At Tzeyang the goods are transhipped to somewhat larger boats, and a second transhipment to the ordinary boats of the Han River is made at Laohokow. Travellers going east take the water route: going west, they go usually by land. The road-distance from Laohokow to Tzeyang is considered as 720 li, and from there to Sinpuwan the same."

The Paradise of Hanchungfu

The most interesting portion of the proposed railway, from an engineering point of view, is naturally the Han valley. The river traverses a region of mountains, interspersed with large cultivable valleys, from the valley of Hungchungfu, 2,000 feet above sea level, which, as Baron Richthofen points out in his writings, is considered by the people of northern Shensi as an earthly paradise. "The plentiful growth of evergreen shrubs and trees, wild bamboo, orange trees, palm trees, and mulberry trees, is," he says, "sufficient indication of its warm climate. The Tsinglingshan, the great range of mountains to the north, which rises abruptly to summits of 6,000 feet, keeps off the northerly winds, while the Tapashan of the south side, commences with gentle and partly wooded hills, between which long rivers descend, with here and there some cultivated valley ground on their banks. Although the Taipings have killed more than one-half of the inhabitants, the valley of Hanchungfu is still very populous and contains many towns and villages crowded with people. I could not ascertain its extent. At Hanchung the width of the valley appears to be about twenty miles from north to south. But immediately west of the city it contracts to no more than seven miles. It continues nearly thirty miles in that direction, and closes abruptly at the destroyed city of Mienhsien. There the two enclosing ranges meet, to form to the west a broad mountainous region which is difficult to penetrate.

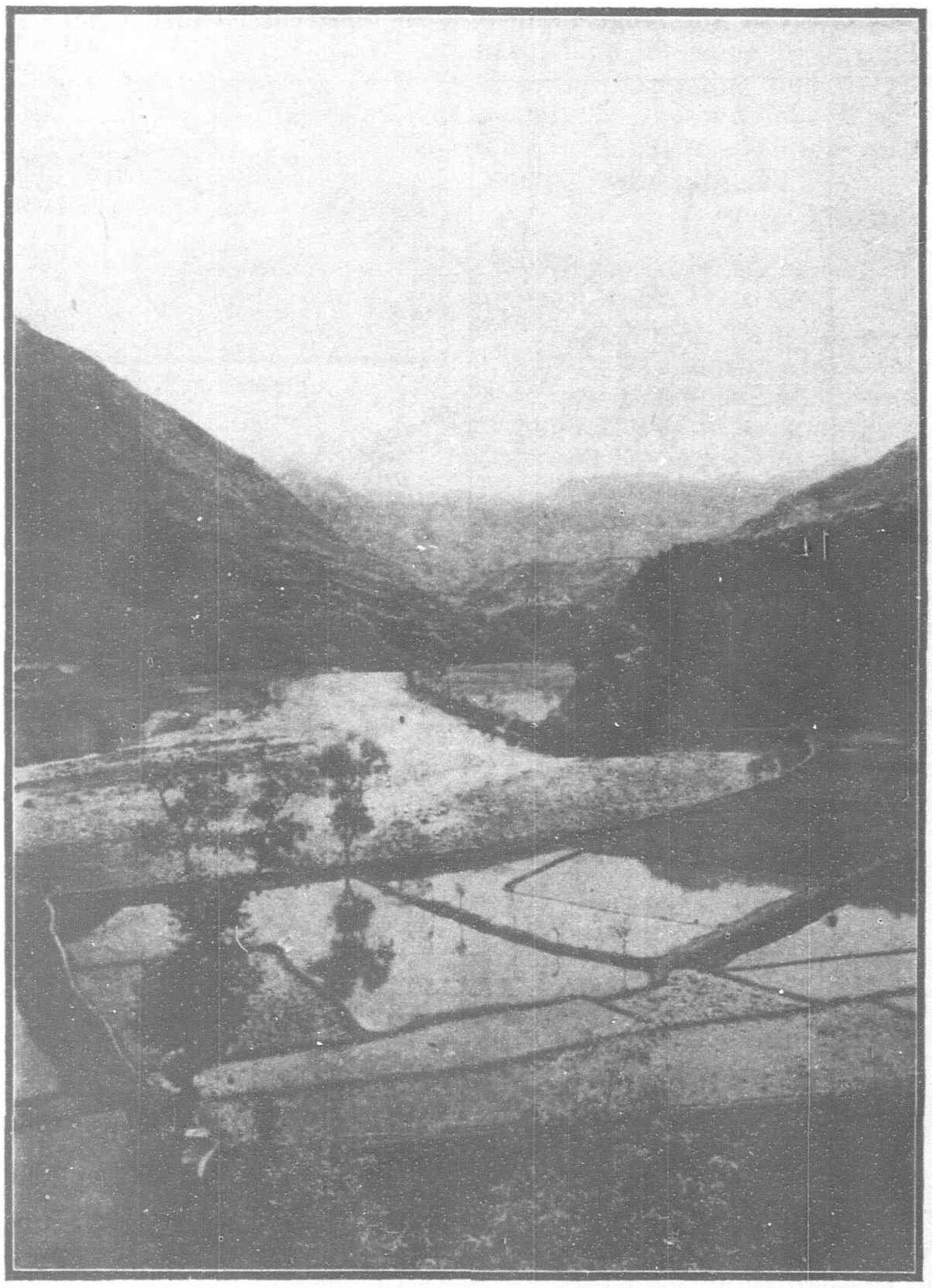
"The valley produces wheat, cotton, tobacco, silk, and many other crops. Besides them the manufacture of carpenter's glue in the district of Sisiang, eastwards of Hanchungfu, deserves some notice. There are places in China that monopolize the manufacture of certain articles, which, although not considered of much importance in trade, attain some magnitude when one small region supplies with them the population of many provinces. Of that nature is the manufacture of glue in Sisiang, probably one half of China is supplied from there with that necessary article. On the road from Taiyuanfu to Hanchungfu it never ceased to be conspicuous among the articles of carrying-trade. The fact that the place,by furnishing a superior article, defies competition, is said to be due to the occurrence of a plant, the bulbs of which are, besides the commonly applied substances, used in boiling the pig skins which are to be converted into glue. Another industry of the country is the manufacture of steel. It is made in several places. The most celebrated among them is Tieluchwang, on the Kiu-sui river, which empties into the Han below Sinpuwan, westwards of Hanchungfu. The place is situated 300 li (about 100 miles) up the river in the Tszpaishan mountains. Several hundred soldiers are stationed there on account of the turbulent character of the numerous population at the steel works."

Hanchung, it is interesting to recall, was in the old days a dependency of the northern emperors, and was referred to in Marco Polo's travels as Cuncun: "A province abounding in mountains which is called Cuncun, and is a very wearisome road to travel."

Lieutenant-Colonel C. C. Manifold, who travelled extensively in China, and who read a paper on the subject before the Royal

Geographical Society, on November 23, 1903, touched on the section of the road near Hanchung, which he reached on his way from Sianfu to Chengtu. On emerging from the Tsinling mountains, he says, "we now dropped into the Han River at Yanghsien and at once began to realise we were in direct touch with the richer towns of the Yangtsze basin, and thus more in contact with western civilization than any we had so far seen. The change in climate too was marked. The air had lost all its fiery, crisp cold: it was damp and chilly—in the morning dense fogs. We proceeded up the valley of the Han, which is here wide and full of cultivation as far as Hanchungfu and used to be a great grain exporting country, now only just sufficient grain to feed the population is grown and its place as an export has been entirely taken up by opium."

This was written, of course, before the extirpation of opium growing was effected by the Chinese Government. Opium was discovered by the farmers to be a more valuable, easier transported crop, and in consequence the western provinces eagerly abandoned grain growing in its favor. The action of the Government in suppressing opium has, however, caused a reversion to the old crops, and large areas which were abandoned have once again been cultivated and wheat is now supplanting poppy almost generally.



Irrigated Valley in Han River Region

A Journey Down the Han

In the course of a journey from Chengtu, the capital of Szechuan Province, to Hankow, about 1869, Alexander Wylie traversed the route up the Kialin river into Shensi and then down the Han River. Entering the Hanchung valley from the west, he says "the wall of the city of Mienhsien was in very good condition but the whole enclosure seemed to be one great field of maize. . . . . The whole population, including the official establishments, is collected in a large suburb on the east side, enclosed by an earth wall, which is now a ruin. . . . From the city of Meen (Mienhsien) eastwards, the hills recede from the river, leaving a level valley of several miles width, which extends some miles beyond Hanchung. Hwangsha (a little west of Hanchung) is a considerable town on the left bank two or three miles below the city, standing back about a li from the river. Rain prevented any extensive perambulations through the city of Hanchung, which seemed to be of moderate size. A tolerable extensive suburb separates it nearly a mile from the river on the south, and there is a much larger one outside the east gate, enclosed by a mud wall, now almost demolished."

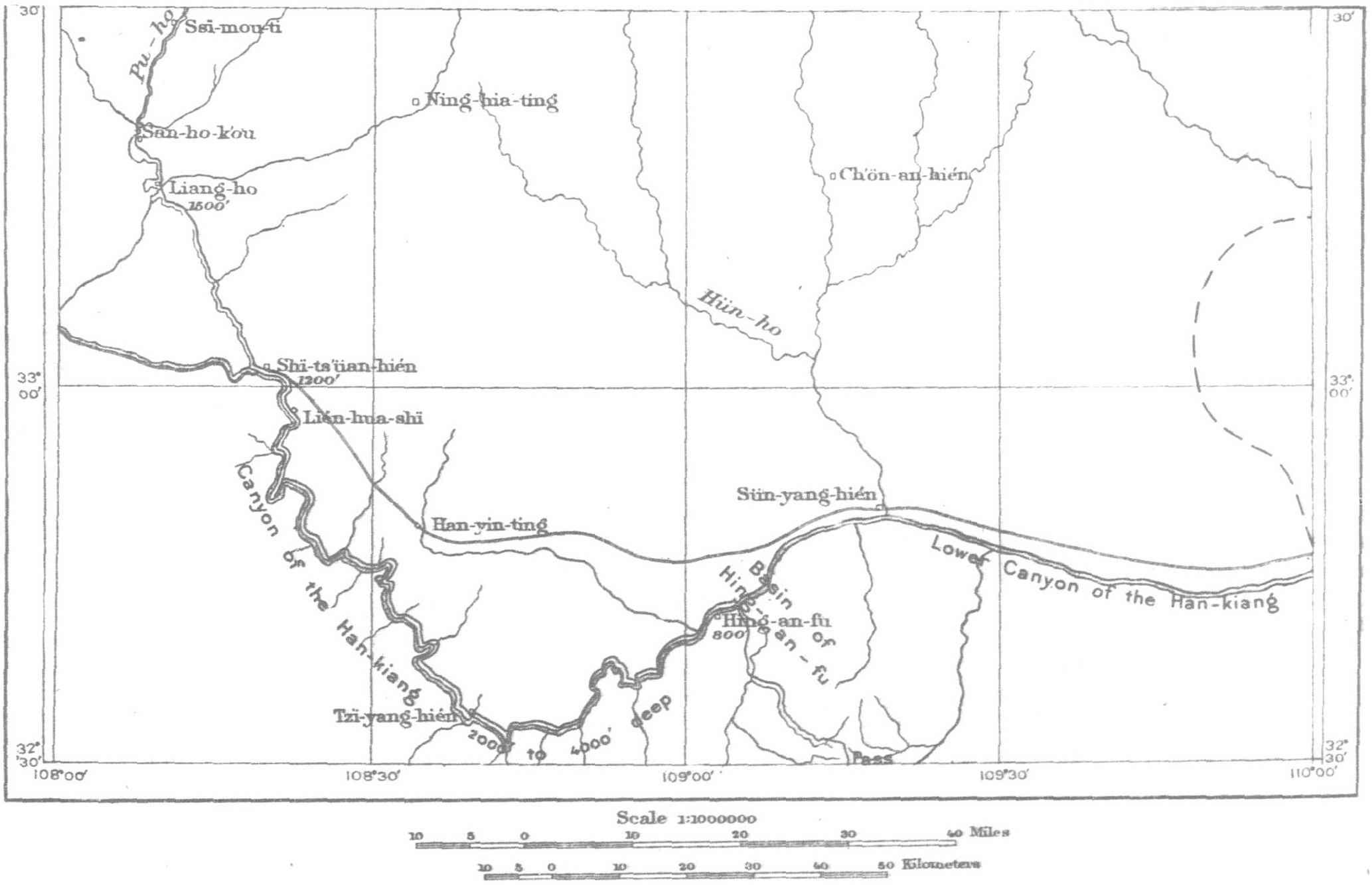
As the boatmen were not prepared to leave Hanchung for several days Mr. Wylie decided to go some distance by chair, and travelled all day over a flat country, chiefly occupied by fields of rice and maize. "At a distance of about eight miles from the city we crossed the Han in a ferry boat, the river there being about 300 yards in breadth, with shallow slope on the left bank and a deep channel and swift current on the right. . . Next day we made 30 miles, mostly over hills, passing several villages and hamlets on the way. . . . Paper is manufactured among the hills not far distant, which gives rise to a good deal of traffic. . . Taking a boat at Matsungtan, we floated down rather rapidly with the current for 17 miles to the district city. This seems to be a busy, thriving place, and there is a considerable suburb on the south side. . . . During the day we passed a number of the large water wheels used for irrigating the fields by raising water from the stream to heights of 20 or 30 feet.

"After leaving Cha-chin much of the path (over hill-tops) was bordered by date, walnut, Tung-oil, and a variety of other trees. The cottagers by the wayside were engaged in silk manufacture. The current carried us rapidly down the stream, making the passage of 20 miles in three hours or less. The course nearly all the way was between abrupt hills, with occasional precipices, and in some places the river is confined within a very narrow channel. There are two rapids in the interval caused by reefs. About mid-day we came in sight of the district city of Shihchuan. The city is built on a red sandstone rock; and there is a spring of deliciously clear and refreshing water just under the southern wall, from which the city derives its name, 'Stone Spring.' The place within the walls is small, and has but one busy retail street from the east to the west gate.

"In the neighborhood of the village of Meihoo (further down river) a good deal of silk is produced. At the town of Hanwangching tea and silk are produced and form articles of commerce. A little way beyond this place a number of coal-pits were passed on the left bank. Some five miles lower there is a good deal of firewood, which the natives make up into faggots and pile up along the banks for sale. Thirty-four miles below this place the river Jen-ho enters the Han. Ten miles up the Jen-ho is a quarry, famous for the production of ink-pallets. Nearly opposite but a little lower stands the city of Tze-yang, a small place built on the summit of a low hill, with a scattered suburb spreading down nearly to the water's edge. Slates are produced in abundance in this neighborhood and most of the houses are roofed with them; not cut to any regular shape, but heaped on just as chance seems to have decided the form. There we took a pilot on board, to guide us through the rapid a mile below the city. The waves were like a little sea, and far exceeded anything of the kind we had previously come to on the Han. Just below the village of Tataouho coal was being wrought in the face of the cliff. Five or six miles beyond there were numerous coal pits on the right bank, and ten miles further down coal was being again worked in the cliff.

"The Han retains much the same character, a tortuous channel of six or eight hundred yards wide between high hills, for about 30 miles further, when the prospect begins to open out, and a succession of low hills gradually decline to a plain of some tens of miles' extent. A few miles further east the prefectural city of Hingan was reached. The business was mainly confined to a large suburb skirting the river. A good deal of silk manufacture is apparently carried on and there is a considerable assemblage of boats. From that point there is a highway to Sianfu, the capital of Shensi Province. Several large rapids are passed before the border of Hupeh Province is reached. The country then gets more open, the hills much lower and more cultivated.

"The hills, which are of sandstone and conglomerate, continue to decrease in height until the prefectural city of Yuenyang is reached. A hill on the right bank, directly facing the city, is called the Teenmashan, or Hill of Pegasus, the tradition concerning which is, that in ancient times the cliff exhibited three characters meaning 'the King of the Celestial Horse.' Adjoining this, on a smaller hill, is a tall, slender pagoda without galleries, named the Polar Star Pagoda. There is a popular tradition concerning that also, that it was built by a former prefect, who suspected the fidelity of some of his wives, and that when the structure was raised in view of the official residence, such was the effect of the fengshui, or 'geomantic' influence, that the grievance ceased. It was built in 1755." From this point Hankow was reached in nine days, and Mr. Wylie gives no further information about the river.



Map of Gorges of the Upper Han River showing Probable route of Railway from Sunyanghsien to Shihchuanhsien to avoid Canyon 2,000 to 4,000 feet deep

A Canyon of the Han

Mr. Bailey Willis and party, while making researches for the Carnegie Institute, also traversed a short section of the Han valley—from Shihchuan to Hinganfu. With regard to this Mr. Willis reports: "The river runs through high mountains, for which we learned no general native name. We shall speak of them as the Mountains of the Han, including under that term the heights on both sides of the river, from the basin of Hanchungfu eastward. In traversing them the Han cuts a deep canyon, which widens at Hinganfu to a valley 8 or 10 miles across on the course of the river from east to west, and probably 30 or 40 miles long from north to south. This basin is floored with recent gravels, and appears to have other features than those which would follow from a simple widening of the river valley. East of Yanghsien the Han soon enters a mountainous region through which it winds in crooked course with many rapids.

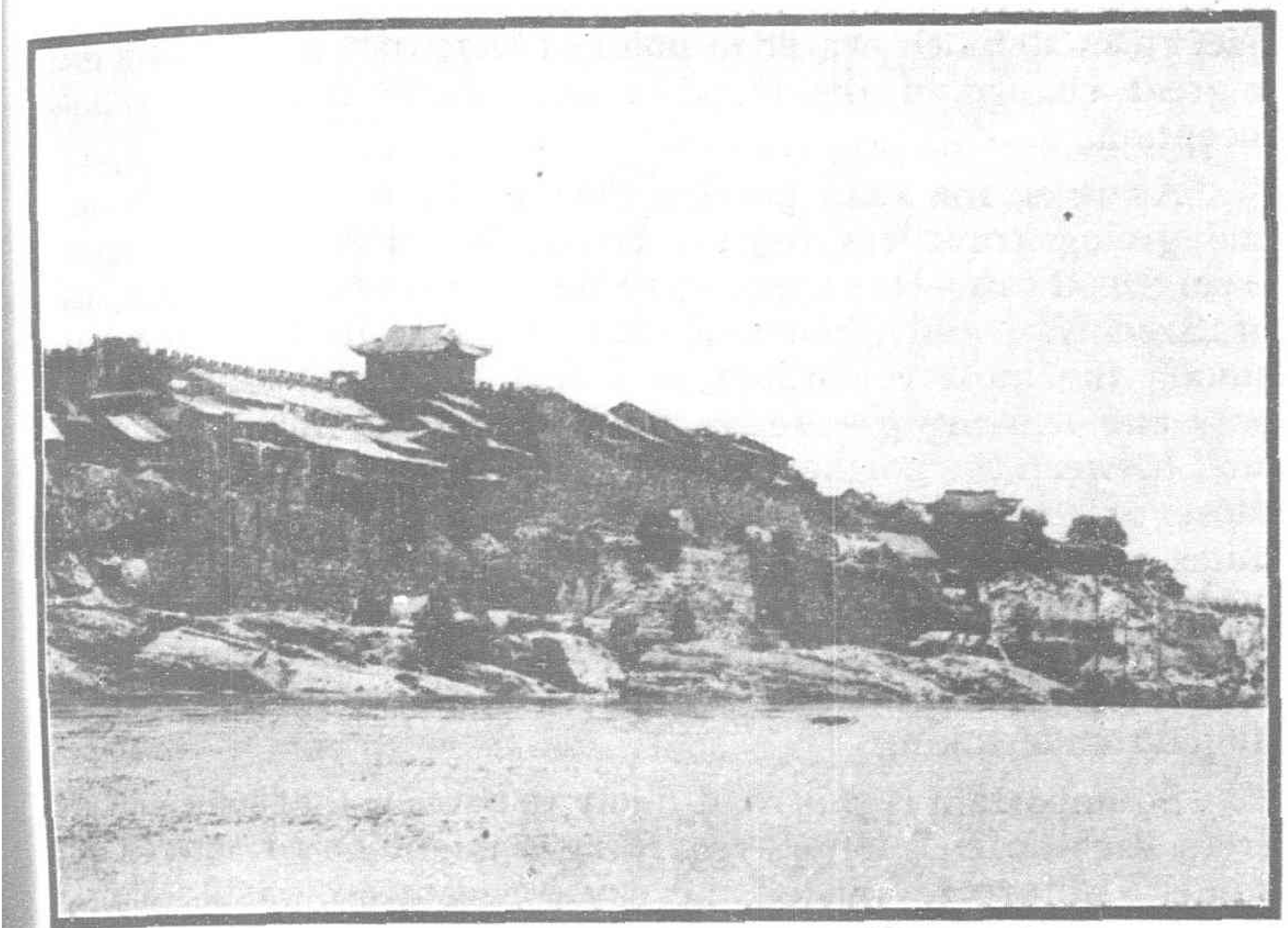
"From Shihchuan shien to Hinganfu, a distance of 105 miles, the canyon of the Han exceeds in beauty many world-famed gorges. There are stretches of the lower Danube which might compare with it, but fall far short in grandeur; in the Highlands of the Hudson there are features of massive gray crags and foliage which one sees repeated on the Han, but the vista of great mountains is lacking. The Han, a stream of great volume rarely more than 200 meters wide, flows in long quiet reaches or dashes in rapids over gravel bars and rock ledges. It is usually confined by cliffs near the water's edge, and these sometimes rise boldly to heights of a thousand feet or more, but more generally the higher slopes of the canyon are wooded or cultivated. The view is often limited to the immediate hills, but when the boat sweeps round a turn and opens a distant reach, there rise before one the forms of splendid mountains, from 4,000 to 6,000 feet above the stream and impressively near.

"Near Shihchuan hsien there is a wide valley belonging to a small stream, which comes from the northwest. The Han enters from a canyon, and after flowing for 3 miles in the wider valley, leaves it to strike across ledges of limestone and granite. At Lienhuashi (Lily Flower Rock) white surfaces of granite rise directly from dark eddies, and the canyon narrows; thence it widens and narrows alternately as the river flows through schists or limestone.

"At one point only was it practicable for us to leave our boats long enough to climb to the hilltops adjacent to the river. Near Siautauho I ascended about 900 feet to a spur on the right bank. From that point the view up the Han showed an old valley level, 1,200 feet above the river, extending widely to the mountain slopes which in that vicinity rise 1,000 to 2,000 feet, 300 to 600 meters, above it. Below Siautauho the river enters a zone of soft phyllites. The hills decline and recede from the river, and the basin Hinganfu opens to the north and south. The river flows across it and leaves it on the western side to enter among the high mountains, which wall in its lower canyon. The basin is apparently a widening of the river valley, which might readily be attributed to the softness of the sericitic schists in which it is excavated."

Down the Han River on a Junk

"If the wind spirits of the Han are not especially unpropitious the voyager will," writes Mr. Francis H. Nichols,[*] "on about the tenth day after leaving Lungchuchai,[†] drift with the current around a promontory out upon an abrupt widening of the river that at first sight seems almost like a small lake. On one side the bank rises in a high bluff that is surmounted by a stone wall and gateway, the unmistakable signs of a city. A stone pier juts out into the river, and from it a stairway winds up to the gateway. This is Laohokow, one of the river-towns of Hupeh. It is from this point that the Han becomes essentially commercial. In the river-bed are twenty or thirty junks of every variety known to China. Some are for passengers and some are for freight. Some are moored to the wharf and some are anchored in midstream. On the junks and about the wharves are crowds of men transferring merchandise from one boat to another and carrying it in long processions that wind in single file up the stairway. The life and activity of the scene are accentuated by contrast with the silent gorges from which the canoe has just emerged. The barrier mountains tower dim behind. The traveller is on a mighty commercial river of commercial China.



VIEW OF SHIHCHUANHSIEN, ONE OF MANY WALLED CITIES SEEN ALONG THE HAN RIVER

Silk Manufacture

"As in most of the towns in Western Hupeh, the weaving of silk is the chief industry of Laohokow. In the fields about the town are thousands of mulberry trees, from which the cocoons are gathered, and are brought in baskets to the factories in the town.

"Although the silk industry of China dates from the time of Hwang Ti, 2800 B.C., and the processes employed have never differed materially from what they are to-day, the system of manufacture is remarkably like that found in large silk-mills on our side of the world. The looms are quite as intricate as those used in America, the only essential difference being that the motive power in Hupeh is a foot-treadle instead of steam. Two men are employed at every loom, the weaver sits in front at the treadle and works the shuttle while another man sets the pattern above on a network of catgut strings. As silk weaving is a form of skilled labour requiring three or four years to master, a weaver receives the extraordinarily high wages of fifty cents a day, which is more than twice as much as can be earned by a labourer in any other trade in Hupeh. The kind of silk that I saw produced on the looms of Laohokao is very different from the flimsy material sold in New York as China silk.

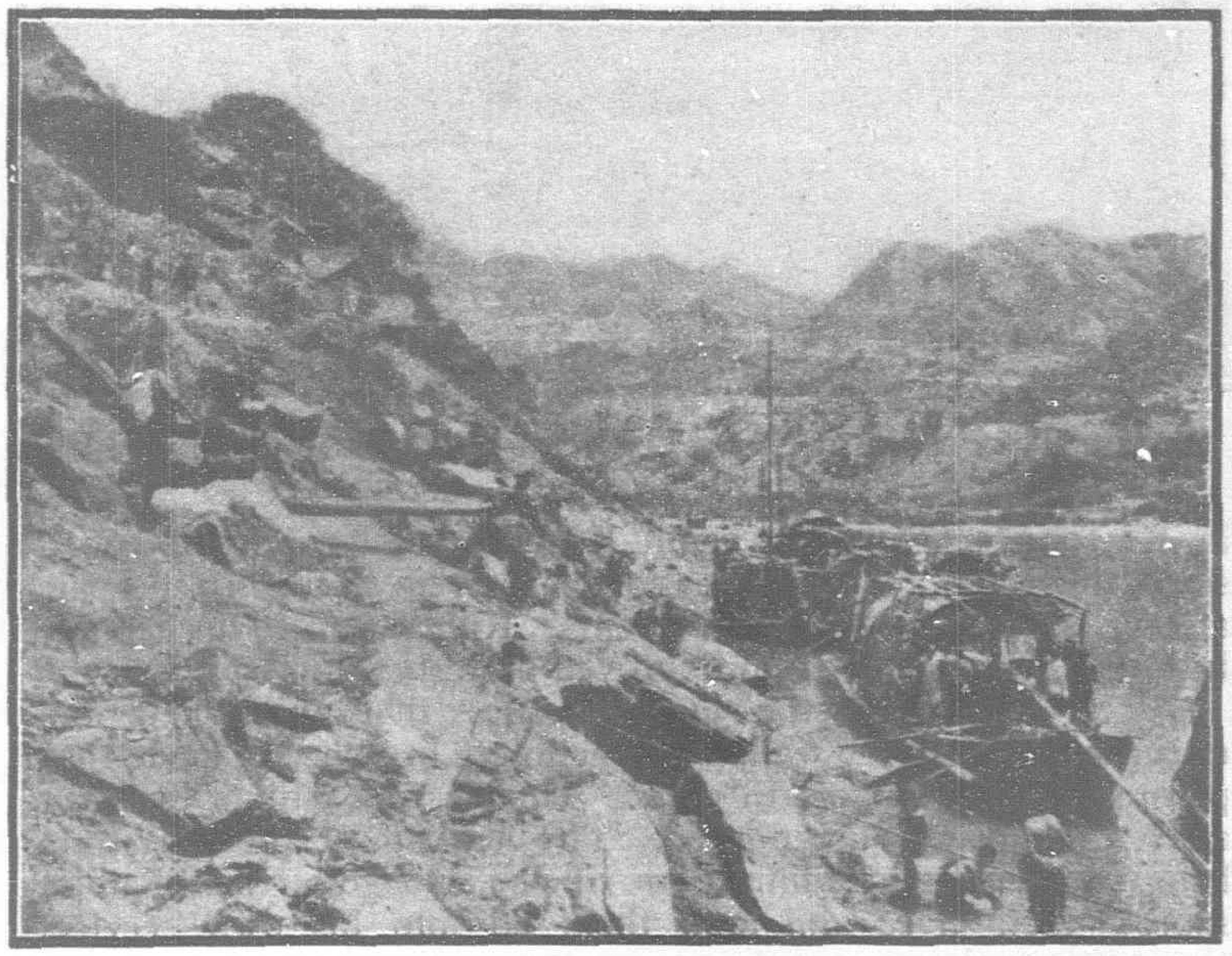
"Compared with the canoes, the large junk on which we embarked at Laohokow was a modern and convenient craft. It was divided into five cabins and had a tiny little dining-room that rejoiced in the luxury of a table and three wooden stools. In an extension built over the huge, ungainly stern was a kind of house where lived the captain and his wife. There is scarcely a mile of the river that does not contain at least two sharp angles around which the junk must alter its direction. Far more useful than the sail is the mast. For the greater part of the way the peak is about on a level with the top of the clay bluff that forms the bank. From the mast-peak a tow-rope is carried ashore. The captain and crew tie it around their waists and then walk along the top of the cliff or bluff slowly pulling the junk after them.

"At the border line between Honan and Hupeh the gorges disappear. From that point to its junction with the Yangtse at Hankow the Han flows between high clay banks. The current is brown and murky, very different from the clear, shimmering stream fed by springs in the Shensi mountains. The towns which one finds on the river-bluffs are all very much alike. They have stone gateways, from which a flight of stone steps descends to a pier extending into the river. Occasionally on a beach in a cleft in the wall-like bluff is a little mud village whose inhabitants make strenuous efforts to sell eggs and vegetables to passing junks.

The Junks of the Han

"It would be interesting to know the amount of the annual tonnage of the Han River. If it could be presented in figures the West might form some adequate idea of the internal commerce of China. The Han is one of seven or eight rivers, which, on every day in the year, are crowded with thousands of junks loaded to the gunwales with every form of merchandise known to the Black Haired People.

"The junks are of light draught and, according to Western ideas of shipbuilding, are ungainly and top-heavy. Yet one of these flimsy boats is able to carry an amount of freight that would tax the capacity of a large American coasting schooner. There seems to be almost no limit to the amount of cargo which a fleet of junks can transport from one point on the river to another. Chinese ingenuity is in nothing more manifest than in the methods of stowing freight. The cabins and upper works are not nailed, but are merely fastened together by skilful dovetailing. When the cargo is greater than the hull will hold, the cabins are removed and the surplus of freight is piled high above the gunwales. Cargoes of long timbers are tied across two or three junks abreast, forming of them a gigantic catamaran, on which the crew sleep and eat and cook their meals as comfortably as on the floor of a house. We passed some twenty or thirty junks heavily laden with bales of American and British cotton cloth. Room was always provided for an extra bale by unrolling it and from it improvising a



HOUSEBOATS ON THE HAN

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[*] "Through Hidden Shensi,'' by Francis P. Nichols.

[†] On the Tankiang, a tributary of the Han.

temporary topsail. The cloth sail was never cut, but on reaching its destination it was rolled up again and delivered to the consignee in the original bale that the boatman had received from the shipper.

"From Laohokow to Hankow the Han is patrolled by a succession of war junks, whose business it is to prevent smuggling and to suppress the river-pirates who now and then steal out at night and rob fleets of freight-boats anchored near the shore. Accustomed as I was by this time to the appearance of slovenliness and neglect that characterised everything belonging to the government, the neatness and trim beauty of the war junks was a pleasant surprise.

"Every morning and evening the deck is washed and scrubbed, and the crew spend most of their leisure hours in painting their craft with a kind of shellac that prevents its exterior from ever looking dirty or stained. The most beautiful sight on the Han River is a war junk cutting through the muddy water with twenty soldiers at the oars, their backs rising and falling in unison.

Two Han River Cities

"On the opposite banks of a bend in the river, fifty miles south of Laohokow, are the Shen cities of Fanching and Siangyang. They are now only sleepy old rivertowns with crumbling walls and dilapidated wharves, but there was a time, several hundred years ago, when they successfully defied the besieging armies of Kublai Khan. All the country to the northward had been conquered by the Mongols, but for two years the Chinese garrisons of Fanching and Siangyang held the way to the capital in Kaifong. Again and again Kublai's soldiers attempted to scale the walls and were as often driven back. In despair at ever taking the two stubborn cities, Kublai sent to his nephew in Persia for cannon of an improved pattern.

"By means of the huge missiles that these new war engines hurled at the walls of Fanching a breach was made that permitted the Mongols to enter. Unable to continue the fight alone, Siangyang surrendered. The heroism of the garrisons had so won the admiration of the Mongols that Kublai spared their lives and took them all into his own service. Fanching to-day has a large market and contains a few silk factories, but Siangyang lives largely upon its memories. Because of its traditions it is a favourite place of residence for aged mandarins, who have retired from active life with snug fortunes accumulated by years of 'squeezing.' The space within its walls is divided into gardens surrounding the villas of its residents. Throughout China, Siangyang is renowned for the glory of its past and the exclusiveness of its present."

Fertile Valleys of Shensi that lie Hidden Behind Mountain Ranges and Which now Depend on River Gorges for Outlet for their Products

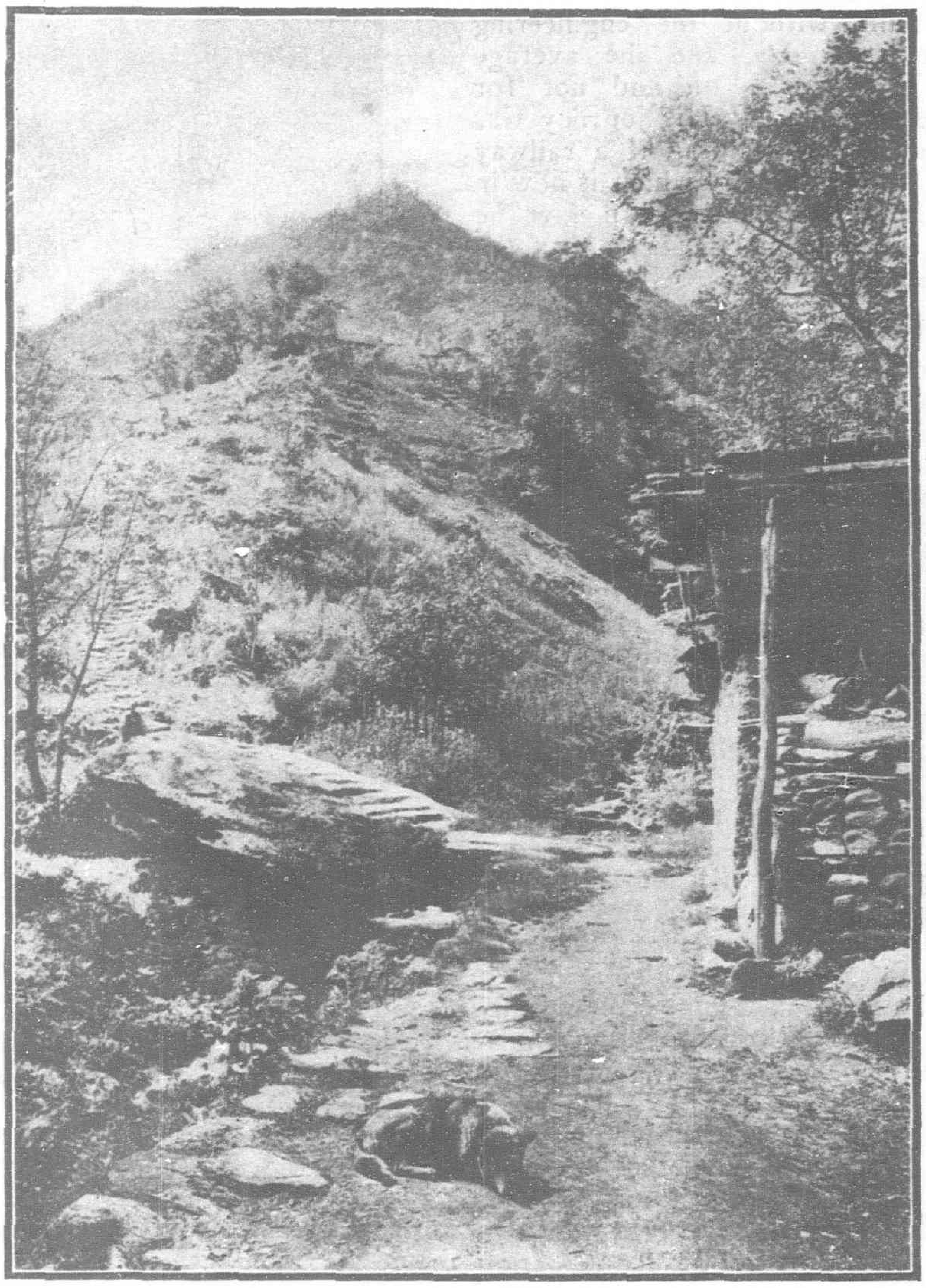
A Celebrated Road into Szechwan

One of the most important developments which is likely to attend the opening of the Hanchungfu valley by railway is the building up of considerable trade with Szechwan Province, which, with the exception of the Yangtsze River has practically no other inlet or outlet. Until recent years Szechwan Province has been considered isolated in flood times, the gorges of the Yangtsze being then impossible of negotiation. In such time traffic has invariably come up the Han River valley and over the Tapashan range into Szechwan, a comparatively short journey once the Hanchung valley has been reached. A railway to Hanchungfu would, therefore, make the great Red Basin of Szechwan so much nearer in point of time that it is certain that a great change in the trend of trade would take place with its inception.

As it is, the road passing through Hanchungfu is the only one giving travellers ingress from the North to and egress from Szechwan. It is a section of the road connecting the capitals of Szechwan and Shensi, a road which, as Richthofen says, is among the most celebrated in China because it establishes the only one existing practicable means of intercommunication by land between the northern provinces, and especially Peking, and those of the south-west and Tibet. Altogether it is some 637 miles from Sianfu to Chengtu, and with the exception of that portion which lies in the Wei Basin, and the short passage through the valley of Hanchungfu, the entire road leads through exceedingly mountainous countries, and its construction was a difficult undertaking.

So important is this road likely to become that some extracts from Richthofen's letters regarding it might be of interest and value. Before it existed, he says, Szechwan was a sealed-up country, inhabited by "barbarians." Hanchungfu could be reached from Sianfu (the capital of Shensi) by mountain trails, which followed probably the same lines as those now existing. To get possession of Szechwan it was necessary to build a road from Hanchungfu to the heart of the Province, which is Chengtu, the capital. The manner in which this task was accomplished, in the third century before our era, is preserved among the people in a legendary way. It is related that the Emperor Tsin-chi-hwang, desirous of subjugating the great territories of the present Szechwan, succeeded in bringing his army across the Tsinlingshan range to the valley of Hanchungfu. From there his troops could easily move to the pass which now carries the name Wutingkwan, but when there they reached a pathless wilderness. He offered relations of amity to the King of the Mantze, who resided at Chengtu, and in token of friendship, well knowing the avaricious character of the prince, offered him two cows which had the remarkable faculty of converting common food in their stomachs into pure gold, having previously taken care that the fame of the wonderful animals should spread and reach the ears of the King. Five delegates were sent to receive the costly present but on their arrival at the Emperor's Court were given to understand that the animals, requiring the greatest care, could only walk on well-constructed roads and must cross rivers on bridges. The Mantze King then constructed the fine road which exists to this day. Tsin-chi-hwang entered the country with his army and took possession of it. The Wutingkwan received its name from the five delegates in commemoration of the event.

For the northern rulers, who had kept a footing in Hanchungfu, the existence of that portion of the road was sufficient to keep Szechwan in subjection. But when, in the third century after our era, a descendant of the Han dynasty, and a sort of Chinese Hercules, by the name of Liu-pi, contrived to get supreme power in Szechwan and, assuming the title of "Emperor," took up his residence in Chengtu, he conceived the plan to conquer the north. He easily took possession of Hanchungfu, and gained a basis of operation. But he needed a good road from there to the Wei basin, in order to be enabled to throw large bodies of troops rapidly into northern Shensi. It is said that he put his whole army, 100,000 strong, at work and that the great object was rapidly accomplished. Thus the connexion between Chengtu and Sian was completed. It is worthy of note that this road, like probably all great highroads in China, was made exclusively for strategic purposes. No one of them appears to owe its existence to motives connected with the promotion of commercial intercourse. Until this day Liu-pi's road has remained the only practicable one in existence. Marco Polo went over it. Afterwards it underwent a thorough repair under the Ming dynasty. Its political importance and the great traffic which goes constantly over it, makes it necessary for the Government to bestow some care on its preservation, but no more work is done on it than is absolutely required to keep it open for traffic. The large interests which it represents should be sufficient inducement for the Government to rebuild it completely.


Typical Mountain Trail in Country Which New Railway will open to Commerce Under Modern Transportation Conditions

The proximity of the head of navigation on the upper Han River in Shensi Province and the head of navigation on the Kialing River in Szechwan Province is emphasised both by Mr. Wylie and by Baron Richthofen. Wylie says: "During the summer floods when the gorges of the Yangtsze are almost impassible, it is customary for native merchants to reach Szechwan via the Han; and having reached the city of Mienhsien they took mules to cross the hills, about 40 miles, to the Kialing River, by which there is direct communication with Chungking and the principal places in the Province."

Richthofen says: "In a west-south-westerly direction from Mienhsien (a few miles west of Hanchungfu) a perfectly straight canal is immersed between the mountains. The Han descends in it, filling just its bottom. This long river is navigable to the mart of Sinpuwan, 50 li above Mienhsien, and only a few miles distant from its source. Goods coming up the river leave the boats here and are carried 125 li by land to the mart Yangpingkwan, on the Kialingkiang, whence they descend to Paoningfu and Chungking in Szechwan. The highroad reaches that river lower down after crossing a complicated defile."

This evidence would indicate that a railway up the Han River valley would put Peking in quicker touch with Szechwan, and would likewise put the markets of the Yangtsze near Hankow in quicker touch with central and northern Szechwan than any other route now existing, and careful survey of the watershed of the Han and the Kialing might discover a way of continuing the line right into Szechwan. If such could be done the value of the railway would be tremendous, for Szechwan is undoubtedly the richest province in China, and is the most isolated by tremendous mountain barriers, the only means of access being the Yangtsze with its difficult gorges.

The Tapashan, in which lies the watershed of the Han and the Kialing, is, according to Richthofen, a mountain range of peculiar character. "Its direction is given in maps as east-south-east, but its north-western end, that which is crossed by the highroad, is made up of parallel ridges which strike W. 20° S.—E. 20° N. The rocks which compose it are Silurian strata, bent up in several folds, which give origin to the ridges. Limestone beds, some of which are over a thousand feet thick, alternate with argillite and sandstone. The rocks are filled with an amazing amount of well-preserved fossils. The region between Ningkiang and Chautien is the richest locality of fossils of any kind or age which I found in China. Some mountains are literally made up of them. The Tapashan is in altitude much below the Tsinglingshan, but it is so deeply eroded, the limestone forms so bold crests, and the rivers break through these in so deep and narrow gorges, that it would be an efficient barrier to intercommunication, if the highroad were not built with care across it, and if the head of navigation of the Han river were not so close to that of the Kialingkiang. The scenery in the Tapashan is of great beauty and diversity. Small villages are nestled between the rocks, and some ground is cultivated; but the area of wilderness prevails, and the population is very thin. The Kialing river flows through gloomy gorges with perfectly vertical limestone walls. Where it emerges from these narrows it intersects a belt of coal-formation, a few miles north of Kwangyuan, and with this ends the passage through the Tapashan. These coal measures form a long but narrow belt and give origin to considerable coal-mining in many places. From the mines near Kwangyuen the coal is carried down the Kialingkiang."

The trade of Szechwan is such a valuable prize that it is sure to cause an exhaustive examination to be made of the mountains of the Tapashan, and the distance between the Hanchung valley and where the difficult mountain mass ends, is comparatively so short that it is quite likely that in time to come even the most costly construction will be found possible so long as rail communication can be pushed through. In other parts of the world equally difficult mountains have been pierced.

A Railway into Szechwan Feasible

On this point it is fortunate that the Chinese Government is now able to speak with some authority, for a reconnaissance was recently made of the whole route up the Han, and into Szechwan, by a Chinese engineer. In a conversation just before going to press with this issue the engineer informed us that it is feasible to take a railway into Szechwan Province, via the Han River valley, without any greater difficulty than has been met by modern engineers in mountains in other countries. He is of opinion that this can be done with a maximum grade of 2 per cent over the pass west of Hanchungfu.

In commenting upon the general impression that entrance by rail into Szechwan is impossible he said that that idea became established because no one travelling the route has specially inspected it with a view to railway construction. The roads are difficult because they were built without the engineering knowledge of facilities that exist to-day, and the average traveller merely looks at the road he is on and not for possibilities of a passage in other directions. His journey was made specially for the purposes of ascertaining if a railway could be built into Szechwan and his report which is now in course of preparation will be in the affirmative. In fact he regards the Han valley route as infinitely more feasible than the projected railway via the Yangtsze valley.

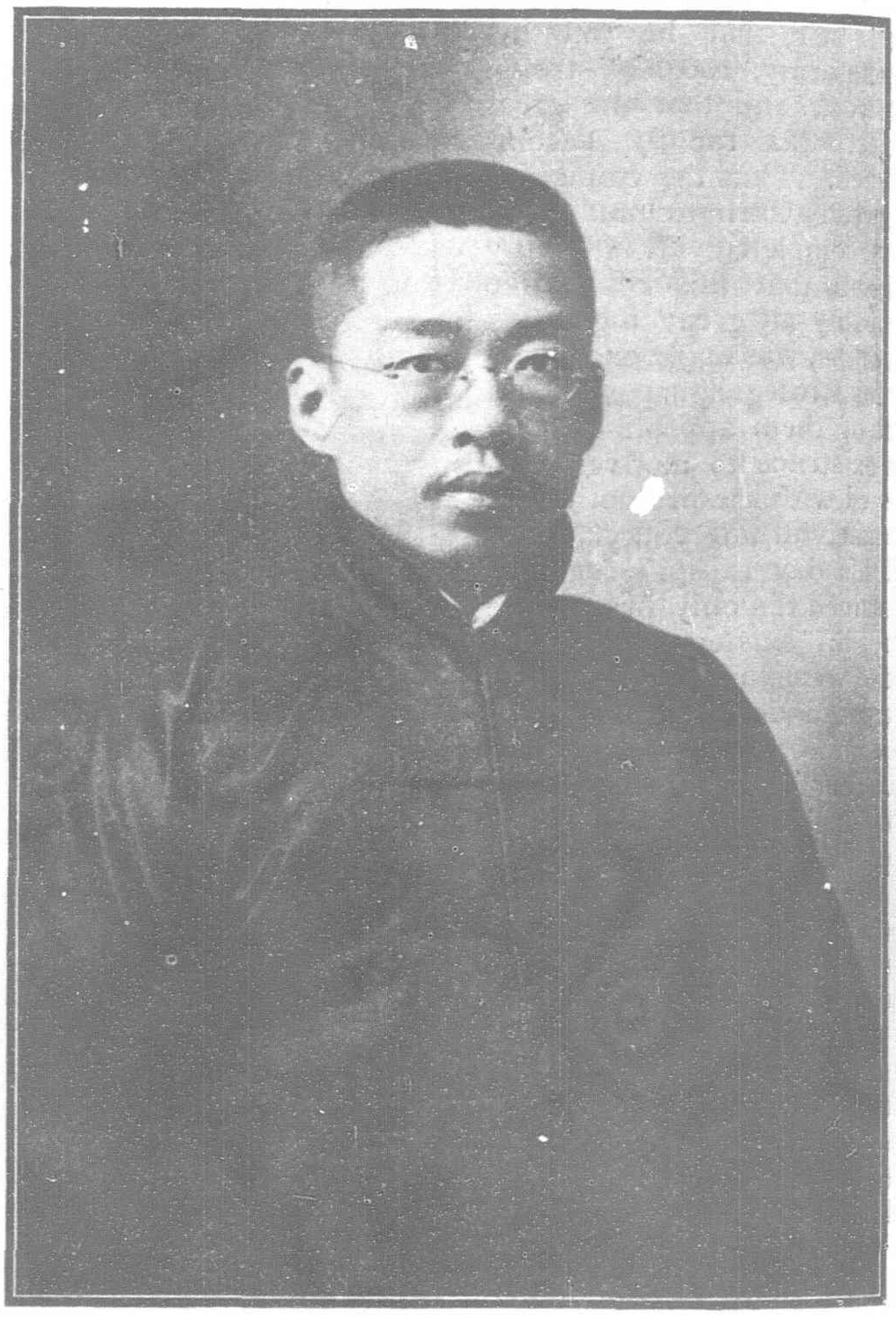
Mr. Taoyu C. Sun, the Director-General

The Director-General of both the railways awarded to the Siems-Carey Company is Mr. Taoyu C. Sun, a graduate of Cornell University, and a man of special capability and actual experience in China. It would have been difficult for the Chinese Government to have made a better choice for the important post which Mr. Sun occupies—being as it is a position requiring special knowledge of engineering, experience of Chinese conditions, and, above all, the possession of the faculty of getting on with foreigners. The three attributes mentioned are possessed by Mr. Sun and they are specially required in the work that is now under way since it is the first practical demonstration on any scale of the contract system of railroad construction in China. How this system will compare with the old method of departmental construction will depend upon those who are in charge of it, and it is essential that both the representatives of China and the contractors shall be capable and experienced men. Mr. Sun has selected a competent staff of Chinese for his department, and if these fully co-operate with the foreign engineers employed by the Government to carry out the work in their interests, and with the contractors, it is calculated as a certainty that the new lines will be built much more economically and as efficiently as any railway previously constructed in China. That, at all events, is what has to be proved in support of the contract system.

Mr. Sun was born in the district city of Shouhsien, in Anhui Province, 36 years ago. Having received the maximum Chinese education possible to Chinese youth he set out to acquire all he could in America to fit him for the civil engineering profession. In 1909 he consequently graduated from Cornell University with the degree of Civil Engineer, and returned to China to serve in the Ministry of Posts and Communications. His first actual field work in China fell to him when he was commissioned to the Peking-Mukden railway to survey and locate a crossing and extension with the South Manchuria Railway and to select a new station site. He was later appointed Junior Assistant Engineer on the Kirin-Changchun Railway. In 1910 he was awarded a Hanlin (Doctor's Degree) at a returned students competitive examination, and later in the same year was promoted Section Engineer of the Kirin-Changchun Railway, then under construction. In 1911 he was raised to the important position of Managing Director of the Kirin-Changchun Railway in charge of construction, and, later operation, and on this line he did especially good work. In 1914, he was selected as Managing-Director of the projected railway, granted to the British and Chinese Corporation to finance, from Nanking through Hunan Province. Under him the survey was completed by the Chief Engineer, Mr. Groves, and work was suspended owing to war preventing the flotation of the bonds for construction purposes.

Mr. Sun was then transferred to be Acting-Managing Director of the Shanghai-Nanking and Shanghai-Hangchow-Ningpo Railways, which post he held until the advent of the Americans in the field. With the awarding of the contract to the Siems-Carey Company for the construction of a line from Chuchow, in Hunan Province, to Chinchow (or Yamchow) in the south-western corner of Kwangtung Province, in 1916, Mr. Sun was selected as Managing-Director of the line, and when, in 1917, the line from Chowchiakow to Hsiangyang was also awarded to them he was appointed concurrently Managing-Director.

The association which Mr. Sun has thus secured with a leading American construction firm affords him a splendid opportunity of acquiring a knowledge of the system of building railways by contract under the American practice, and such experience should be of considerable value to himself and to China. He has the capabilities to take advantage of what "new learning" might be afforded him, and likewise his character is of the kind which *will* assist the contractors to overcome the difficulties that many foreigners in the past have alleged are ineradicably associated with any enterprise in China.



Managing Director Taoyu C. Sun

Geology of Central Shensi

Observations in the Han Province,—Tsinlingshan and the Han Valley

[By Bailey Willis & Eliot Blackwelder[*]]

General statement.—The Tsinlingshan mountains and the Han valley constitute a special geologic province, by reason of the regional metamorphism which the rocks have suffered. This province we designate simply the Han Province.

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[*] "Research in China" by expedition of Carnegie Institution of Washington, D.C.

We entered this geologic province at the north, where metamorphism is most intense, and proceeded diagonally across it toward the south; and we observed the true sequence of formations, as it is exposed on the Taningho and Yangtse sections, only after we had left the region of metamorphism. It follows that we reached a partial and tentative understanding of the relations of the schists only through the subsequent study of our notes, and we no doubt failed to observe important facts, which we might have seen had we known where to look for distinctive evidence. The geology of the Tsinlingshan and Han valley will offer but little difficulty if thoroughly surveyed. Even the pioneer work of von Richthofen approximated the true relations, and the supplementary reconnaissances by Loczy and ourselves enable us to sketch a reasonably reliable outline of the sequence and distribution of the rocks. In the following pages we jointly discuss our observations and our inferences of the stratigraphy and structure, for each locality, thus departing from the plan pursued in other chapters of our report. The available data are not sufficient to furnish an adequate basis for more systematic treatment.

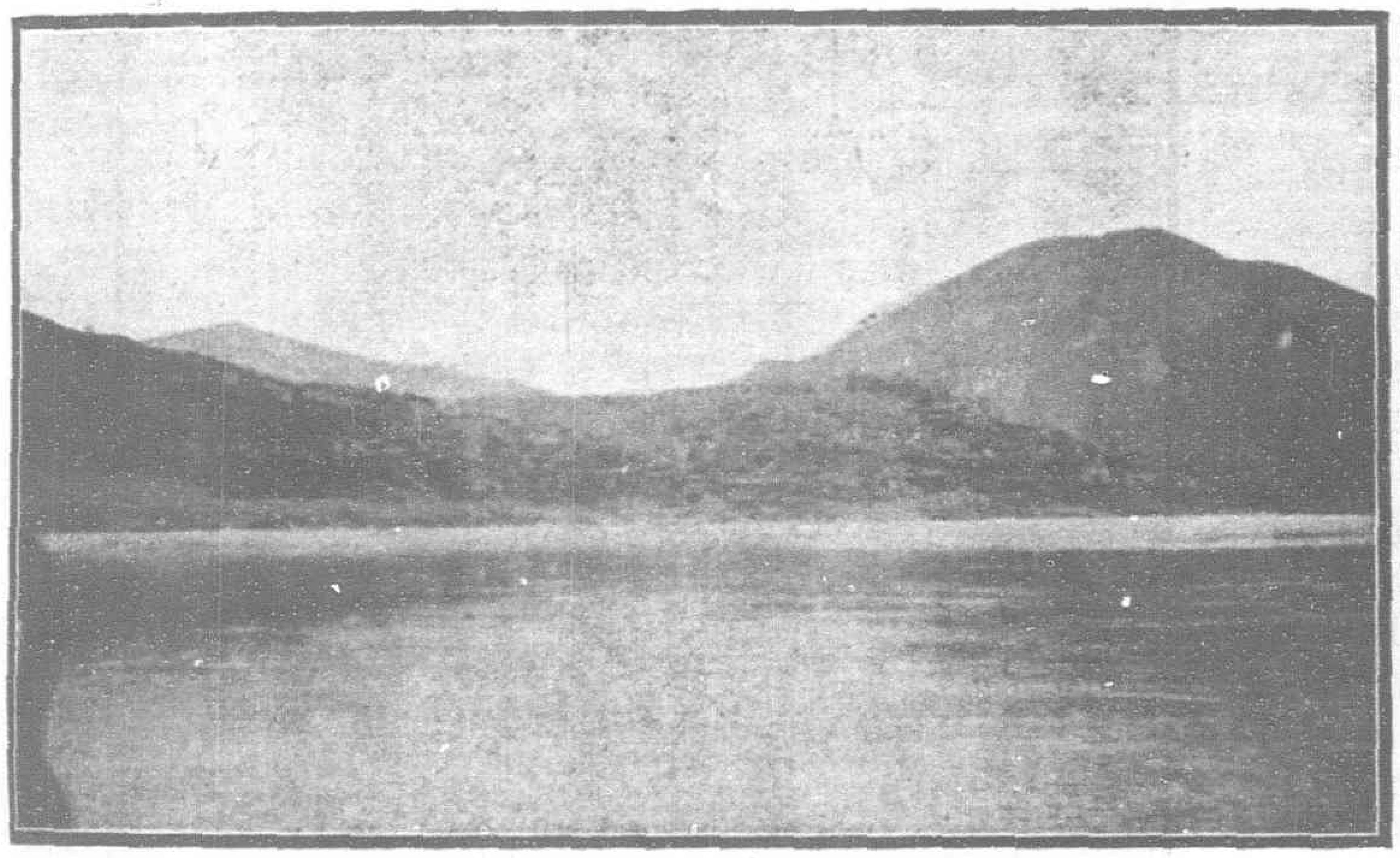
Chenp'inghsien to Hinganfu.—Chenp'inghsien (lat. 31° 49', long. 109° 34',) is near the southern margin of the district of that regional metamorphism which characterizes the Han system. From the limestones which occur from 0.5 to 3.5 miles, (1 to 6 kilometers,) south of the town, we collected Cambrian fossils, and we have no doubt that the shales which appear on the north as well as on the south of the limestone anticline are the Middle Paleozoic Sint'an shales. Following the Nankiang northward from Chenp'inghsien, we first cross dull olive-green and gray argillites. These argillites have been subjected to sufficient dynamic action to crush and shear them in many places and even to develop an imperfect slaty cleavage. They have been intruded by a number of thick gabbro dikes.

Three miles below Chenp'inghsien the Nankiang receives a tributary from the west. On the south side of this stream the black limestones and slates, similar to the Wushan limestone on the Yangtsze, overlie the green argillites and continue in closed recumbent and contorted folds to Kuniutu and beyond. The rocks are very dark argillaceous and frequently bituminous limestones interbedded with gray slates and pyritic black slate, which locally contain thin coal-seams.

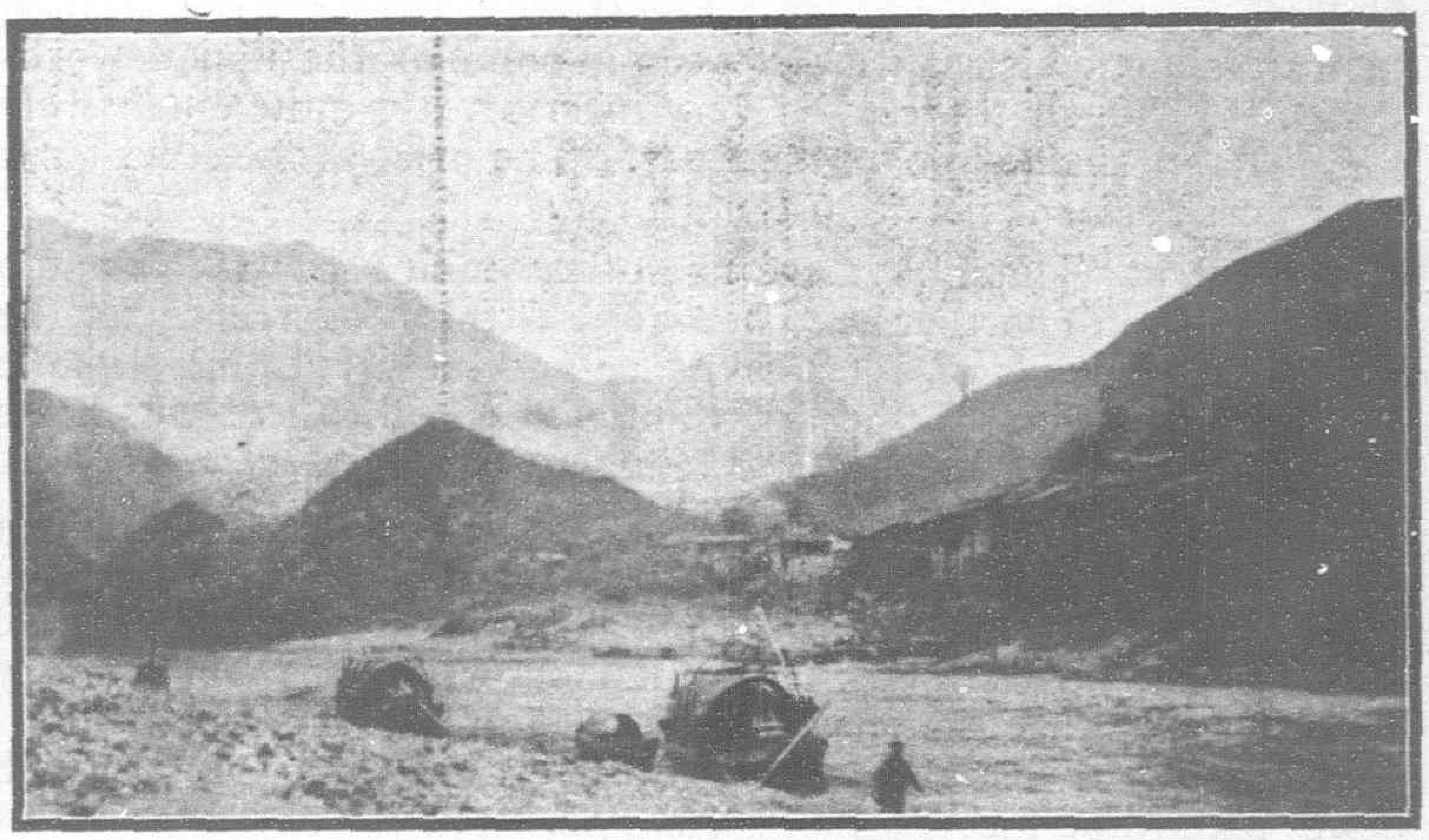
Two or 3 miles, (5 kilometers,) north of Kuniutu greenish slates reappear. They resemble in color and in general composition the green argillite near Chenp'inghsien, differing from that formation chiefly in the more prominent development of slaty cleavage. The slate is intruded by irregular bodies of gabbro, some of which are several hundred feet in width. The contact between gabbro and slate is sharp, and the latter has been locally altered by the intrusion to a chlorite-hornfels. It is probable that these slates are a reappearance of the Sint'an shale.

Two miles, (3 kilometers,) south of Paikiuhia the green slates of the Sint'an are succeeded by black limestone and slate, through which the Nankiang cuts a gorge, which is narrower than the canyon immediately above or below. These rocks are dark impure limestones, sometimes siliceous, but usually argillaceous. They are associated with dense buff dolomites, black and gray slates, and anthracite coal, which is mined in the vicinity of Paikiuhia from seams in the black limestone. In the same locality intrusions of gabbro, similar to those mentioned in the last paragraph, break through the hard limestone as well as the slates. We regard this outcrop as the lower massive part of the Wushan, which occurs in the same relation north of Chenp'inghsien. The dip near Paikiuhia is steep to the north or vertical.

The coal mine east of P'inglihsien is worked on a small vein, which is very badly squeezed and faulted. Silvery schists of the K'uichow extend along the river, and the blue-black siliceous limestone of the Wushan outcrops both north and south of them. It is difficult to say in what horizon the faulted coal occurs, but it appears to be in the schist in an overturned syncline. All the beds dip north from 10° to 40°, and the structure is apparently that of a syncline of K'uichow and Wushan schists, crushed under massive bodies of the lower Wushan limestone, which is overthrust from the north. The strike which, south of P'ingli, trends north-northwest, now changes to east-west. Thirty-five miles, 56 kilometers, west by north from P'ingli, on the Han river, we crossed a similar zone of apparent overthrusting of the Wushan on the K'uichow, and we believe the structure to be a continuous major feature of the region.



A CITY ON THE HAN IN ONE OF ITS BROADER REACHES, QUITE IN CONTRAST WITH THE RAPIDS OF THE GORGES.



SCENE ON THE HAN SHOWING HOUSES SHORED UP AGAINST THE MOUNTAIN SIDE

North of P'inglihsien, the Wushan formation occurs in its characteristic phase of blue-black calcareous and siliceous argillite, often a cliff-making rock, much joined and somewhat slaty. The beds dip both north and southeast, on sharp local folds which pitch steeply northeast. Coal is mined at several places.

The hills near Liuwangmiau and thence northward to Hinganfu are composed of monotonous gray phyllites and brownish mica-schists, which extend northwestward across the Han kiang. Near Lauhsien the schists contain coal, and in some of the slates streaks of hematite occur. The mineral is mined in a small way as an ore of iron. This occurrence of coal and iron ore, together with the general lithologic character of the schists, leads us to place the rocks in the K'uichow formation.

We thus recognize two distinct coal-bearing formations in this region, one of them equivalent to the Wu-shan limestone, and the other to the K'ui-chow beds of the Yangtsze valley. This opinion is supported by the fact that coal occurs in both formations in eastern Szechwan, and also in both the Carboniferous and the Jurassic in the northeastern part of the same province.

In the Han River Valley

Hinganfu to Shihch'uanhsien.—We ran the stretch of 105 miles, (169 kilometers,) from Shihch'uanhsien to Hinganfu in boats in 28 hours, not counting stops. The river flows in a canyon 1,000 to 4,000 feet, (300 to 1,200 meters), deep, frequently between precipitous bluffs, which rise 100 feet, (30 meters), or so above the water's edge, and which are in general surmounted by long steep slopes. Throughout the entire distance there is a practically continuous section of the limestones, slates, and schists of the Han system, with occasional large dikes.

For 8 to 10 miles, (13 to 16 kilometers), above Hinganfu the banks consist of the characteristic gray phyllites, which we consider to be the K'uichow schists. Near Siautauho coal is mined in black siliceous slate, which we assign to the Wushan formation. The contact between the K'uichow schists and this belt of the Wushan probably crosses the river in the west by north direction, between Lanhokow and Liushuitien. Extended southeasterly, it passes south of Nuwangmiau, where we have already noted it.

The coal a mile below Siautauho is a bony anthracite with much pyrite. It is mined at intervals from the river to the summit of the ridges, the dip being nearly vertical, though contorted. A score of openings may be seen, and in the half dozen visited the bunches of coal vary from 1 to 12 feet, (3 to 3.5 meters), in width, up to 30 feet, (10 meters), in height, and from 1 to several hundred meters in length. The lenses represent formerly continuous but now badly squeezed beds, which may have been 4 or 5 feet thick. They are repeated on an anticline, which is well-exposed in some of the upper workings. Although the coal is very inferior, it is quite extensively mined and shipped down the river. The price at the river bank is 75 cash a picul, about 70 cents a ton.

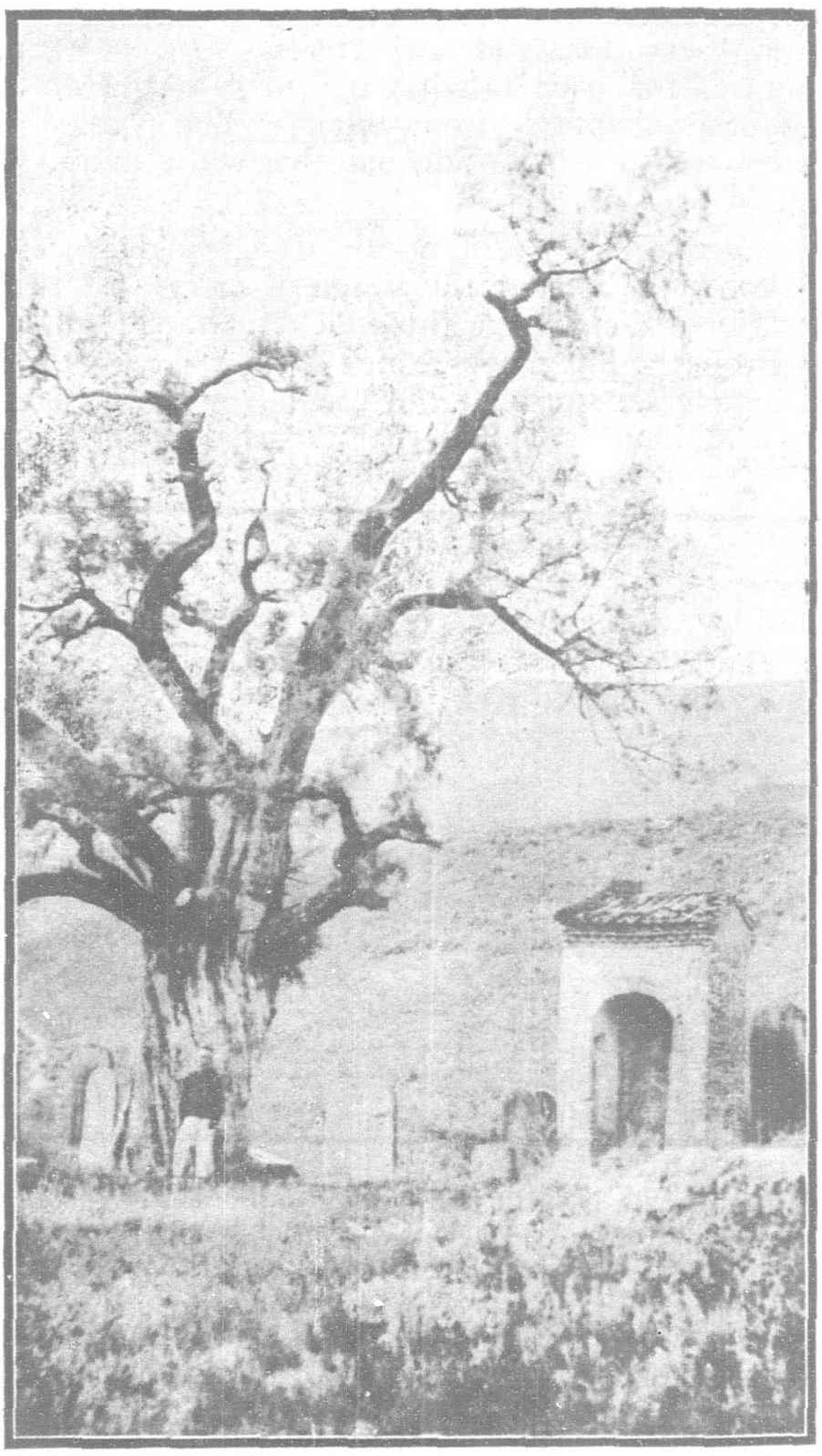
Just at Siautauho there are other mines in which the dip is 15° to 40° northeast. We regard this occurrence as the southwestern side of a local syncline and the vertical dips a mile down the river as the adjacent anticline, northeast of which the beds dip under the succeeding K'uichow schist.

Between Tatauho and a sharp bend a mile south by west from Hanwangchong we observed chiefly soft olive and gray phyllites, locally dotted with small octahedra of magnetite and of the general character of the K'uichow schists; but the very sharp bend that the Tungho enters 4 miles, (6.5 kilometers), southwest of Tatauho carries the river into limestone, which we take to be the Wushan formation. The dip observed in this limestone, 35° north, and that noted in the schists near Huankutan, 10° southwest, form a broad flat syncline. We interpret the structure as a shallow basin of K'uichow schists on Wushan limestone. If the Wushan coals occur they crop out southwest of the Hankiang and it is possible that they lie at gentler dips and are less squeezed than near Siautauho; but the schistosity, which strikes northwest across the basin and dips 67° northeast, indicates that the coal would be disturbed. The schists are cut by large masses of basic igneous rock, similar in appearance to the gabbros that occur further south. Tziyanghsien lies in the syncline, and for convenience of statement the name Tzi-yang may be applied to the basin.

The Tziyang basin and the syncline at Siautauho are adjacent, but apparently not connected. If they were connected, the coal-beds which strike north of the river at Siautauho should recross it near Tatauho, striking southwest and dipping northwest. We saw no such recurrence of the coal nor any structure parallel to that strike. We infer that the two synclines are separated by an overthrust, which replaces the anticline that should lie between them and is of such displacement as to bring into close proximity two folds whose axes are at right angles to one another.

Between Hanwangch'ong and Lienhuashi a nearly complete section of the Han system is apparently displayed. Northwest of Hanwangch'ong the canyon is roughly parallel to the strike of a series of blue-gray shaly limestones, with which are associated thinner membres of gray slates and schists. There is a notable lack of coal-veins and black rocks in general. The dip of the limestone is usually steep, being 45° to 80° to the northeast and 60° to the southwest. It seems to be an anticline which is locally overturned southward. Near Suehua the limestone passes south of the river, and the rock of the banks is greenish slate or schist; but thence for 6 miles upstream to beyond Hanyangp'ing, the limestone prevails. We regard the limestone as the lowest formation of the Han system, the Kisinling (Cambro-Ordovician), but we here see only its uppermost strata, and we do not know of any other occurrence of it in the Han valley.

In the tortuous course above Hanyangp'ing the river three times crosses a contact between green slates and overlying blue-black limestone, a contact such as that which characterizes the base of the Wushan formation. At or near it we noted, in two sections, a conglomerate, which we regard as probably a basal conglomerate corresponding with that seen south of Pakuamiau. Upstream toward Yufangp'ing there occur the calcareous black and coaly argillites of the Wushan, which are, however, much contorted, the dip varying from 25° to 80° and the strike from nearly east-west to northeast-southwest, through an angle of 135°. The contorted beds are also dislocated and overthrust.



TOMB OF WEN TI, AN EMPEROR OF THE HAN DYNASTY

Two miles, (3 kilometers,) below Lienhuashi silky gray phyllites succeed the limestone in the normal position and with the lithologic appearance of the K'uichou schists. Thus the sequence of the Han system, from the Kisinling limestone to the K'uichou schists, appears to be accounted for from Hanwangch'ong to this point.

Below Lienhuashi (Lily-flower-rock) the schists are intruded by a mass of light-gray granite about 2 miles, (3 kilometers wide), across which the Han has cut a very narrow and beautiful gorge; north of the granite the schists extend for 2 miles, (3 kilometers), to a contact with the dark quartzitic limestones that in this district appear to represent the Wushan. The strata are associated with coaly beds and characteristic blue-black argillites, which form the south bank opposite Shihch'uan hsien.

In the vicinity of Shihch'uan hsien the valley of the Han is wide, with a long slope on the north and hills of moderate altitude on the south. The northern bank and part of the southern, 1.5 to 4 miles, (2 to 6.5 kilometers), below the city, consist of Shihch'uan sandstone which we describe as Jurassic (?). We have next to consider the northwestern extension of the structure seen near Lienhuashi. The occurrence of the K'uichou schists near Lienhuashi, between the Wushan formation on the north and south, is probably a syncline, though the Wushan on the north may be more or less overthrust. In the canyon of the Han west of Shihch'uan hsien, this belt is crossed again. The dip is from 50° to 70° toward the northeast throughout, but we do not doubt that the strata are over-turned from the northeast and that the structure is a complicated closed syncline. A section extending 7 miles, (11 kilometers,) from Shihch'uan hsien up the river was paced off during our stay at the city, and the following sequence was noted. Thicknesses are given to suggest the relative extent of the rocks in the section, but it should be understood that they have no value as measures of the actual or original thickness of any of the strata, since they are greatly increased by folding and schistosity. Fossils were searched for, but not found. This section ends abruptly against white felsitic aplite, associated with massive greenstone. The relation of these igneous rocks to each other is not known, but they are evidently intrusive in the sedimentary series.

Rocks exposed in the Han Canyon above Shihch'uanhsien.

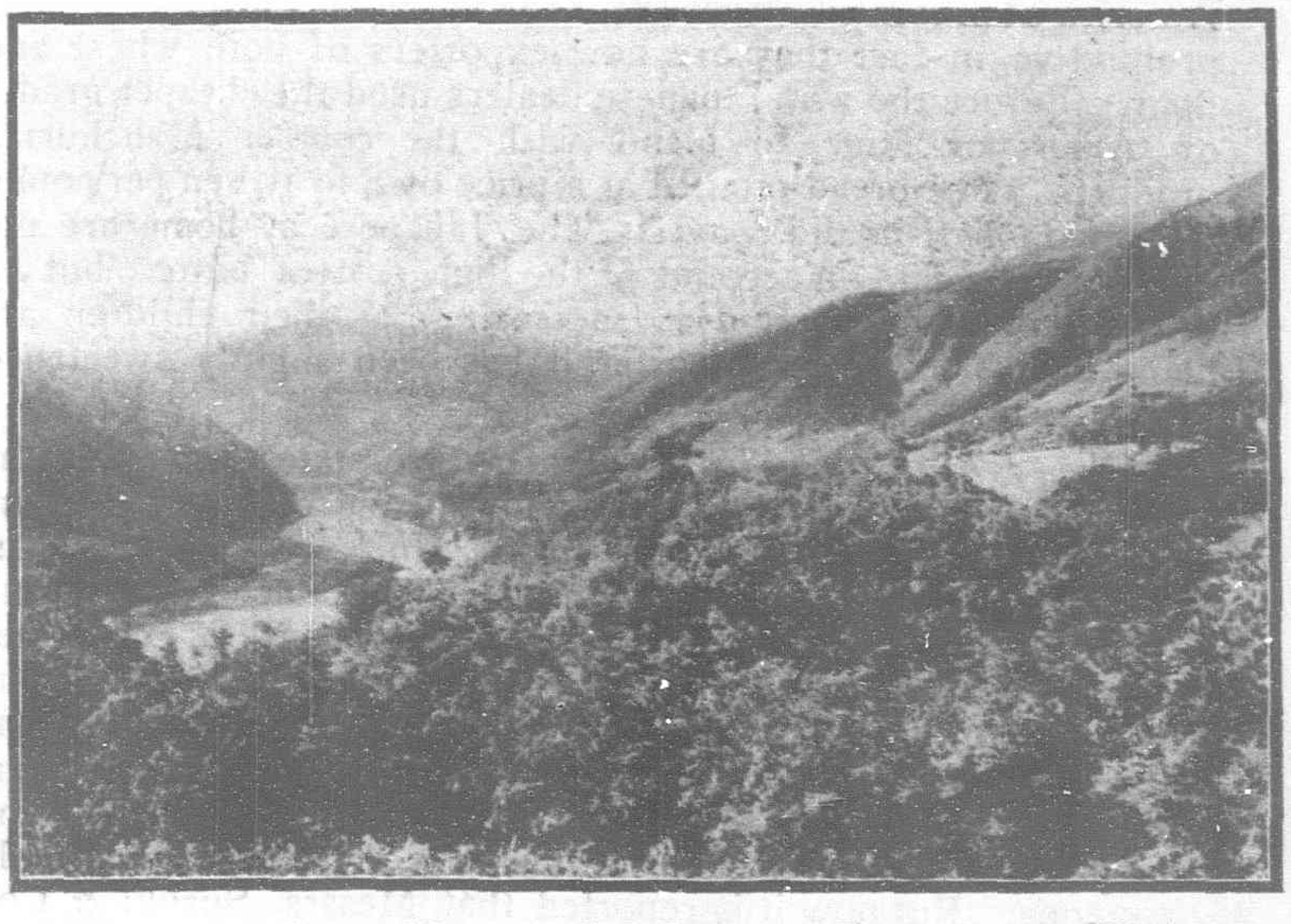
Formation.	*Character.*	*Width of Outcrop.* *Feet.*	*Meters.*
Wushan formation.	Blue limestone and dark carbonaceous limestone.	600	180
Northeastern limb overturned.	Spotted quartz-biotite-schists; presumably infolded K'uichou.	1,000	300
	Bluish limestone, sericite-schists, and black coaly schists. Contains a dike of black amphibolite.	300	100
K'uichou schists; synclinal.	Soft green slates or schistose argillites with local gneissic quartzites.	9,000	2,700
Wushan formation. Northwestern limb much repeated by folding.	Blue-black slaty limestone, partially schistose. Quartz-mica-schist (50 feet).	2,600	780
	Dark massive limestone, much contorted.		
	Mica-schist.	150	45
	Blue-black slaty limestone.	1,000	300
	Silvery gray biotite-schist.	100	30
	Blue-black flinty limestone, containing one thin layer of coarsely crystalline white limestone.	3,800	1,150

Shihch'uan hsien to Ts'aikiakuan.—North of Shihch'uan hsien the conditions for observation of the rocks are less favorable than in the canyon of the Han.

For a distance of 4 miles, (6.5 kilometers), north of Shihch'uan hsien the Han system is covered by the conglomeratic sandstones of much more recent date—the Shihch'uan formation. In the vicinity of Sziyenpa the prevailing rock is a silvery sericity-garnet schist spotted with biotite. It contains at least one thin member of buff crystalline limestone, which is rich in muscovite and has a tendency to cleave readily in parallel slabs without regard to the planes of stratification. South of Fanchantan hard blue-black siliceous limestone forms a narrow in the valley. Adjacent to it, and probably overlying it, are soft coaly black schists like those on the Han river opposite Shihch'uan hsien. The limestone is brecciated in numerous places, and white veins fill the fractures. It appears to be doubled in a closed fold. We consider it an anticline of the Wushan appearing through the K'uichou schists.

View of part of the Han River's Tortuous Course through Gorges

The Han Gorges near Shihchuanhsien



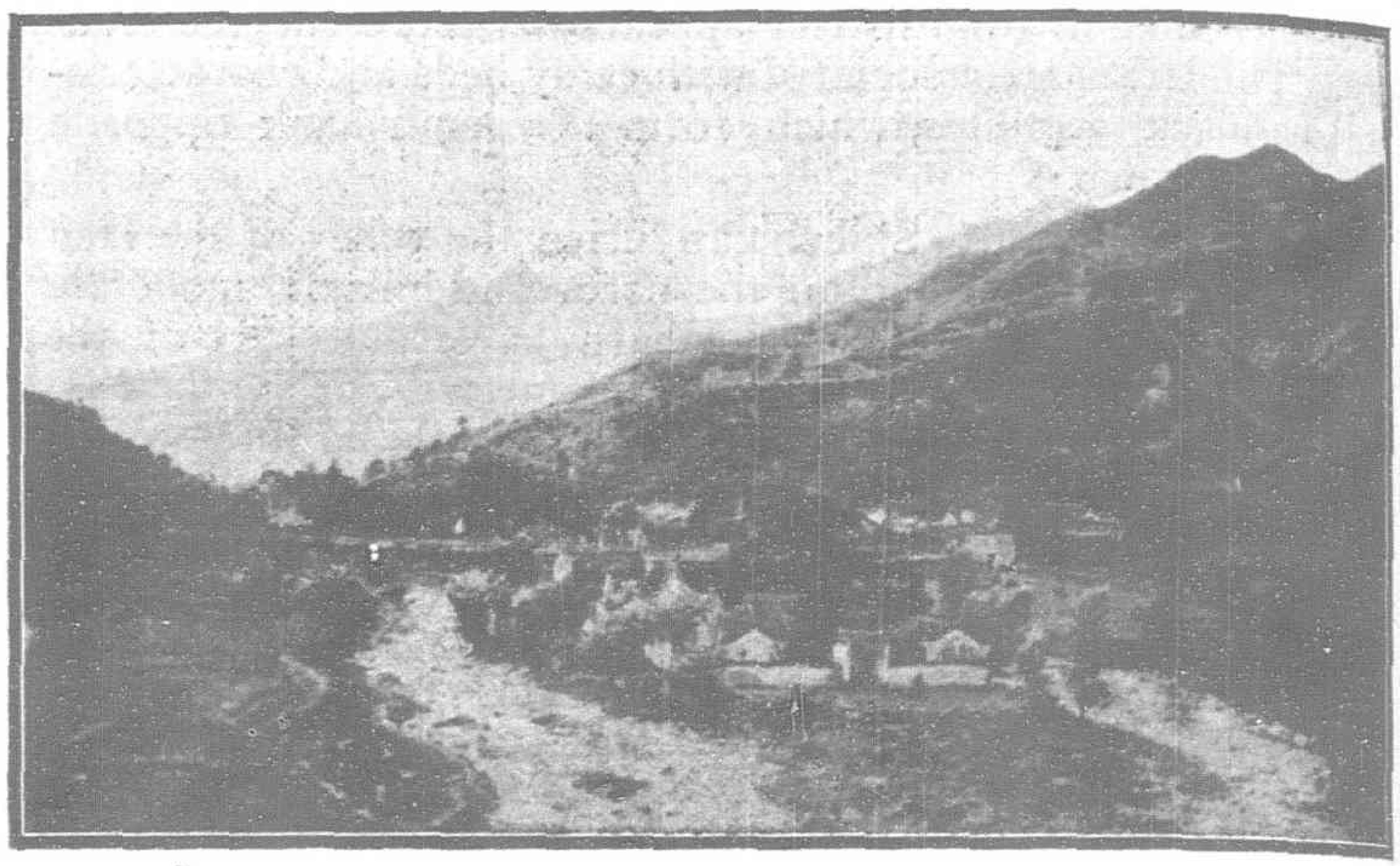
Where the Gorges Widen to Give Place for Fields Due to Washing out of Softer Rocks by Ancient River Floods

North of the black limestone belt the garnetiferous mica-schists and buff limestone bed, seen south of it, reappear, and similar schists form the surface to the head of the valley. At one bend of the stream, however, 2 miles, (3 kilometers,) north of Fanchantan, we noted a small outcrop of much-folded black argillite, and near the divide, on which is situated the temple of T'oumonssi, the black soils observable in the neighboring slopes indicate that coaly schists occur extensively.

Late Mesozoic. Shihch'uan sandstone:—The Shihch'uan sandstone consists of conglomerate and reddish arkose sandstone. It was seen only in the vicinity of Shi-ts'uan on the Han river, where it is exposed in an open lowland bordered by mountains of Paleozoic strata. The prevailing rock is a firm coarse-grained sandstone, composed of heterogeneous materials. It contains seams of conglomerates, which become more numerous downward and finally pre-dominate at the base of the formation. The pebbles range up to 12 inches, (30 centimeters,) in diameter, and consist chiefly of dark limestones and schists derived from the Han system. The strata are not folded, but are gently tilted toward the west and southwest. Cross-bedding, inclined at angles of about 20° toward the west, is very prominent in the sandy portions, which have the character of a delta deposit, the cross-bedding being more regular and persistent in its dips than it usually is among the worked and reworked accumulations of river flood-plains, or in subaerial deposits. The distribution of the mass in the river valley probably does not signify that it was deposited by the existing river; it is more likely that the valley has developed on the soft sandstone. The southern margin is straight like a normal fault, and we therefore regard the mass as a down-faulted block. It is possible that the faulting produced a depression, in which the sandstone gathered as the wash of streams on the tilted slope. We observed a thickness of 320 feet, (97 meters), but the actual thickness of the formation may be much greater.

Although the contact at the base of this sandstone and conglomerate was not observed, the fragments of the Han river rocks included in the formation prove beyond question that the contact is unconformable. The sandstone was evidently deposited at a period later than the folding, metamorphism, and igneous activity, which have so conspicuously affected the strata of the Han system.

According to Père David, who noted the rocks at Shihch'uan hsien while descending the river in 1873, similar reddish sandstone and conglomerate outcrop near Ch'ongkuhsien on the upper Han. Beyond this brief mention, however, we know of no previous description of the Shihch'uan formation, in the Han valley. We are inclined to regard it as equivalent to the conglomerate and sandstone described by von Richthofen and later by Loczy from northern Szechwan.



A Scene in Shensi on a Tributary of the Han

There is nothing in the lower members A and B1 and 2 resembling the strata at Shihch'uan hsien, but the strata B3 and 4 are essentially the same. The heavy conglomerate B3 marks a change of climatic or topographic conditions, if not an unconformity, and it is probable that a stratum which contains pebbles of the Paleozoic rocks should overlap upon them. On this comparison we regard the Shihch'uan sandstone as probably equivalent to B3 and 4 and assign it to a later Mesozoic age than the "lower Jura" or Triassic of von Richthofen's section.

Pleistocene:—The Huangt'u formation of northern China was not seen along our route across the Ts'inlingshan and through the Han valley. Remnants of alluvial soil remain here and there, on cut terraces in the mountains, but they do not constitute a formation. Recent river alluvium and gravels are not extensive along the streams, where they flow in canyons. Only in the basin of Hinganfu did we observe a considerable deposit of fluviatile material. It consists of gravels carried by the Han, and is not very recent, as the pebbles of crystalline rocks, which it contains, are generally decayed. Glacial deposits do not occur, and even the lofty summit of the Tapaishan (12,500 feet, 3,750 meters), exhibits no topographic features suggestive of glaciation.

JAPAN AND AMERICAN WHEAT

Japanese dealers are not importing much flour from America at present, because the war has made the price almost prohibitive, in fact they are now exporters of both wheat and flour. Before the war Japanese dealers used the cheaper grades of American flour to blend with the coarser Manchurian products. The bread retailed at a price of 8 to 10 sen per pound usually in half-pound loaves. The Japanese at home are not great bread eaters on account of the high cost of butter, but by degrees the consumption is increasing, as their children are being taught to eat bread after it has been slightly sweetened with a coating of sirup.

The *Japan Times* in a recent article states regarding the wheat trade that a strange situation is being created in Japan, owing to the poor wheat crop in the United States this year. Japan, which has been importing no small amount of wheat and wheat flour every year thus far, is now about to export her produce to America. Arrangements have been made for the export of South Manchuria wheat to Seattle and Portland by the Mitsui Bussan Kaisha and the Abeko Shoten through some American agents who have been very active at Kobe for some time past. The total volume of business at the time was only 2,500 tons. But now it is reported that Messrs. Suzuki & Co., of Kobe, have arranged a contract with a certain American agent for the export of Japanese wheat to the extent of 500 tons at 6.25 yen per picul ($0.023 per pound). This condition has been brought about by the scarcity of wheat in America this year.

Japan used to import 10,000,000 yen ($4,985,000) worth of wheat and flour every year from the United States up to the outbreak of the present war in Europe, and even after the importation on a wholesale scale was stopped, some amount of trade has been continued. Naturally this change in the situation has brought about a great boost in wheat in Japan. At Kobe, which is now the principal wheat-exporting port, 14,20 yen is the standard price for Japanese wheat, which is 4 yen above the last highest price recorded between the old and the new season this year. However, South Manchuria wheat is still comparatively cheap and available for export, and, it is believed, in the latter product more business may be arranged.

A most beneficial effect also has been produced by the poor wheat crop in the United States on Japan's flour market Since last month more than 100,000 sacks of wheat flour have already been exported from Kobe to London, with British agents still buying actively. Indeed, they are intensifying their purchasing activities at Kobe and elsewhere, and according to a fairly trustworthy report contracts for 500,000 sacks more have been recently arranged.

It is only a few years since American flour was first imported, yet here we find the Orient exporting this Western staple. With this example of how quickly the tables can be turned, who will say the Oriental is slow?

THE "MAILED FIST" OF FRIENDSHIP

What is in Japan's Professions of a Change of Policy towards China?

Viscount Motono, Japan's Minister of Foreign Affairs in the Terauchi Cabinet, has succeeded in arousing unusual interest in the government which he represents and in causing the whole Orient, including the Europeans and Americans resident in the East, to suspend judgment upon the sincerity of Japan's "friendly" attitude towards China, and the former's desire—now tiresomely platitudinous—to see the independence and territorial integrity of the latter preserved. In his declaration of foreign policy before the Diet on January 23, Viscount Motono said that it was the government's desire to secure a cordial entente with China, to assist China in her numerous necessary reforms, to see that China becomes a strong and independent nation, and to do it all without violating Chinese independence or treading in any way upon Chinese susceptibilities.

There is nothing new in these remarks or rather pledges. The whole Orient knows the formulæ upon which they were built, and the very phraseology in which they are expressed is over-familiar to all who have kept in touch with Sino-Japanese relations since 1894. Every Japanese aggression in China, every open insult to the Chinese nation and its rulers, and every petty outrage in the catagory of "incidents," so called, has been coincidental with the broadest possible dissemination of such estimable sentiments and pious platitudes as Viscount Motono has reshaped for his own immediate needs. The present expression of such immaculate purposes, coming from any ordinary Japanese, great or small, would pass without comment or dissection as a trite sample of Oriental insincerity; but Viscount Motono does not seem to be the ordinary Japanese, for he has the better part of the Orient hoping that what he says is at last true and he has even succeeded in putting the Chinese in a receptive though dubious frame of mind. The Chinese are sometimes said to be forgiving, and whether they are or not, they are most manifestly forgetful; but there are many memories in their minds which are too fresh to harmonize with a belief in any Japanese policy of benevolence, some memories a few years old, some a few months old, and some only a few days old, some ominously coincidental in fact with Viscount Motono's declaration of altruistic policies before the Diet. They may be impressed, they may even be hopeful, but they are too wise in tribulation and too conscious of freshly bruised dignity to be anything but sceptical. The Chinese as a nation are now distinctly Missourian in their reception of all Japanese protestations —they want to be shown.

Viscount Motono, who returned recently from Petrograd to take his place in Premier Terauchi's non-partisan cabinet, found occasion for his statement of policy at a meeting of the Diet which both he and Count Terauchi addressed a few days before the dissolution of the representative body by Imperial decree. It was one of the last, in a series of final efforts to obviate the necessity of going back to the people for Cabinet support, and both the Premier and the Foreign Minister were faced with the alternative of being evasively compliant or frankly defiant. Now that the Diet is dissolved and the Cabinet is temporarily independent of parliamentary criticism, it is still difficult to decide which course the distinguished statesmen took. They said nothing which a Japanese would not be expected to say to an interviewer for foreign publication. Their sentiments were the perfectly decorous and correct sentiments which have been put before the world by a long series of Japanese statesmen for a generation. The vote of "no-confidence," which severed relations between the Diet and the Cabinet two days later, and brought about the immediate dissolution of the former body, has been so variously accounted for by Japanese journals that their editorial opinions are no help to a decision upon the Terauchi-Motono addresses. Some say, as the great mass of the Japanese people inevitably says, that the representative body lacked confidence because of the "spineless diplomacy" in dealing with pending Chinese matters, because the government lacked "penetration," meaning here aggressiveness, and because its policy was "negative in nature." Others claim that the ministry was not supported because it was too aggressive, because it failed to correct the diplomatic errors perpetrated in Okuma's time, because it did not right the manifest wrongs which have been done China, and because it has not succeeded in winning Chinese trust and confidence. Still other Japanese journals express the opinion that neither foreign nor domestic policies had much to do with the breach between the Diet and the Government, but that the non-partisan character of the Cabinet had aroused the party jealousies of nearly all parties, that all were disgruntled and irritable because their particular leaders did not sit in and control the high places, and that each was separately determined to seize the first opportunity to force the Terauchi Cabinet to resign and enter upon a campaign for a party Cabinet of its own making. This is probably the truest interpretation of the *contretemps*, and if it is true, there is no reason to believe that either Count Terauchi or Viscount Motono took any particular pains to express their real views upon the question of Chinese relations or any other matter. Under such circumstances their addresses would have no more significance than the polite oratory which is vented upon the laying of a corner stone or the opening of a public school.

Yet knowing all this, the East, and to some extent the West also, has permitted itself to be stirred by Baron Motono's outline of policy, and is waiting, as it would not wait for Count Terauchi, for the acts which will confirm or give the lie to his verbal expression of opinions. The Chinese have so often given Japan the benefit of the doubt when these messages of good will have come to them directly or indirectly from the Japanese Government, and have had so many rude disillusionments and such recent ones, that the least of their virtues is faith, but Viscount Motono has made an impression and Japan's few friends and numerous enemies in the Orient are all equally sincere in their hope that his Government will not confirm China in her belief that nothing good can come out of Nippon by a repudiation in fact of his published utterances.

After discussing at some length Japanese-American commercial relations, Japan's part in the European war, Japan's hold upon the German colonies in the Pacific and other matters, Baron Motono spoke upon his Government's attitude towards China in the following terms:

> "I think the events which have taken place in recent years in China are still fresh in your memory, and I do not need to dwell upon them in detail. But it must be admitted that out of these events have arisen unpleasant factors in the relations between the two nations. These factors must be removed by all means. If I say that the reforms which have been accomplished in China in the last few years were due greatly to the assistance given by Japan, I venture that no one will deny it. Japan is exerting herself in good faith on behalf of China. But China often looks at Japan with the eyes of jealousy and entertains ill feelings toward Japan. Why is that?
>
> "There must be causes. In my view the greatest of the causes is the fact there has been a tendency to meddle with the domestic political affairs of China.
>
> "Our attitude has won the ill-feeling of our neighbors in China, and at the same time made the powers suspect our sincerity. I can declare here that the present ministry will never resume such a policy.
>
> "The Imperial government will endeavor to make China realize our sincerity. Whether China would repose her trust upon the Imperial government or not must be decided by China herself. I assert that the Imperial

government has no intention of rendering any special assistance to any particular party in China. The Imperial government desires to maintain friendly relations with China herself, and has no intention to maintain friendly relations with any political party there. The Imperial government desires most that China shall progress toward civilization along the right path. What worries the Imperial government most is that as a result of continued internal disturbances China may become disintegrated. It is most necessary that China should maintain her independence and preserve her territorial integrity and the Imperial government will do all it can to prevent the dismemberment of China.

"Japan has a special position in certain quarters of China, especially in South Manchuria and East Mongolia. Japan acquired her special position in Manchuria and Mongolia by paying great sacrifices, and Japan has secured special privileges and interests by treaties or agreements with China. That the Japanese Government should protect these interests and rights is proper. That China should respect the rights and interests of the Empire is the duty of China. We must see that China realize that such will be the way to bring about friendship between Japan and China. If China really wants friendly relations with Japan, China must also show the same attitude as the Imperial government. Otherwise, friendly relations between Japan and China cannot be expected at all.

"If China realizes clearly the true intention of the Imperial Government, I believe the Chinese Government will have no objection to the policy of the Empire."

The most interesting and really the only novel part of this message to the Diet is the admission that Japanese under previous ministries had been indiscreet in their dealings with China and had alienated the Chinese by interfering in political affairs and by helping one party or another into power as opportunity and expediency prompted. The interferences referred to are well known to the whole world and the official confession is not news, but it has the importance of being official and is something which China can file away for future reference. Baron Motono thinks that these meddlings in China's domestic trouble are the chiefest of China's grievances, or at least he says he thinks so, and by dwelling upon this point and ignoring other sources of disputation between the two nations, he suggests to the minds of all who are familiar with the affairs of the East the many other causes of anti-Japanese prejudice which the Japanese have given the Chinese. It must be remembered in considering this phase of Baron Motono's address that one of the charges brought against the Terauchi Cabinet was its failure to introduce a China policy which would differ from and be an improvement upon the Okuma policy. It was therefore Baron Motono's cue to say something derogatory to his predecessors, and to show some point wherein his policy differed from theirs, at the same time avoiding the mention of any of the Okuma practices in China which might hamper in future the activities of the present Ministry in the pursuance of its "opportunity of a thousand years" on the continent of Asia. The sceptical Chinese have deduced from this a theory. They say that the Terauchi Government, having carefully observed that previous meddling with Chinese politics, the support and financing of Chinese (troubles), is not paying an interest on the funds and thought invested. It has been an unprofitable sin, and as such it is the sort of sin that every practical individual or government should confess and repudiate. It is a convenient sin to bring against previous Cabinets in power for domestic political purposes, and helps to conceal the fact that the really profitable sins of the last Ministry are neither confessed nor repudiated.

That there are Japanese who regard Viscount Motono's criticism of the Okuma policy as a purely political play is made evident by the following comment by the *Asahi:*

"It is not unnatural for one ministry to attack another ministry, but in such a way no unanimity of the nation can be secured. Viscount Motono has shown an attitude of hostility. He attacked the China policy of the former ministry, saying there was a tendency to meddle with the domestic affairs of China in the past, and that the present ministry will not do that. Although Viscount Motono explained his statement, it was clear that he attacked the former ministry."

Under the category of meddling, the Japanese Government or its independent nationals in China are charged with having committed among others the following indiscretions during the past five years or more, and to most of these Viscount Motono would probably plead guilty; since he is pleased to condemn, sincerely or insincerely, Japanese interference in China's politics and in her domestic upheavals:

When the fall of the Manchu Imperial House was imminent in 1911, Japan made a vigorous effort to interest other Powers in a campaign to save the Imperial system and crush the revolution which was succeeding in the South.

The leaders in the rebellion against Yuan Shih Kai in 1913 found funds for their reckless enterprise among the Japanese, had the advice and sympathy of Japanese military men in their campaigning, and found a refuge and further financial support in Japan when their rising was crushed.

When the Yuan Shih Kai monarchical movement was well under way, Japan entered an official protest, in the form of warning advice, and the Japanese, whether official or unofficial, set about giving all possible support to the revolutionaries in Yunnan, in Kwangtung, Shantung, and Inner Mongolia where the organization was rather bandit than revolutionary.

When the Chinese Government was under the shadow of a Moratorium and particularly in need of funds, the Japanese did their best to embarrass, if not to strangle the struggling administration, by objecting to the release of the Salt Gabelle surplus.

It is well known on the authority of reliable correspondents that when Wu Ta Chow, ex-outlaw, who is now imprisoned in Peking on various criminal charges, was conducting a farce revolution in Shantung, he had every assistance from the Japanese, who held the Kiaochow-Tsinan railway—a neutral Chinese railway on Chinese soil—and permitted the bandit revolutionaries to use it and railway property, gave them the protection of the Japanese flag when their defeat was imminent, and dictated to the Chinese Government forces, when they should fight, where they should fight and on what terms they should make truces with the rebels.

It is also well known on equally good authority, that similar protection and assistance was afforded to the Mongol bandits in Manchuria and Inner Mongolia and that their movements were greatly facilitated by the use of the Southern Manchurian Railway and the sanctuary of the railway zone.

These are only a few cases of Japanese interference in Chinese affairs which, whether official or unofficial in their character, might have been officially controlled. The cases of individual interference and of individual participation in Chinese political movements and rebellions are, according to the Japanese, not preventable, and in very few cases would they seem to be punishable if one is to judge from the records of Japanese dealings with their independent trouble makers. But being individual acts, not traceable to direct official control, they would scarcely come under Viscount Motono's category of meddlings.

All these matters have been wearisome to the Chinese, but the Japanese acts in China which have been most trying are conspicuously omitted from Viscount Motono's confession of indiscretions. They must have been fresh enough in his memory. While reminding the members of the Diet of the errors of the previous administration he did not mention, or make any generalization that would include, the notorious Demands of 1915, the violation of neutral territory in Shantung during the advance upon Tsingtao, the seizure of a Chinese Government railway, the various loans negotiated upon terms most unfair to the Chinese, the various petty incidents in Manchuria in connexion with the Chinese suppression of Babuchapu and his Mongol-Japanese bandits, and the most recent Chengchiatun Incident which was settled within a few days of the making of his address. Upon these various matters, fully as interesting to both Japanese and Chinese as the questions of interference, he made no comment, no confession, and had no pledges to offer. This may or may not be significant. It is interesting to note, however, that other Japanese have not passed so lightly over them, but consider them vital questions, open to argument, upon the discussion and settlement of which depends the future of Japan's relations with China. Some Japanese journals, and individuals quoted in their journals, have deplored from time to time the various aggressions and outrages which have alienated the Chinese, others applaud them and assure their fellow countrymen that nothing but a "strong policy" will get Japan all she wants on the mainland.

The *Tokyo Mainichi,* in defence of the Okuma policy and the aggression movements made by Japan in China says:

> "The cabinet meeting of March 7 last year was not a mark of failure on the part of the Okuma ministry. On the contrary it was a success. The anti-Yuan policy of Japan was not a failure; it, too, was a success. As for the various events which took place in Manchuria and Mongolia and the attitude of Japan toward them, they were only minor matters. The anti-Yuan policy of Japan was the most important one taken by Japan in China."

The *Asahi,* criticizing the Terauchi Ministry for its vague dissertations upon friendship for China and advising a return to the vigorous Okuma policy, has the following to say of Chinese friendship:

> "The Chinese are a race who are liable to become audacious when leniency is shown to them. But it is not the Chinese alone who are to blame. The Terauchi Ministry's China policy is lacking in penetration. It is negative in nature. Thus the Japanese demands for the right of stationing police officers in Manchuria and Mongolia and sending military advisers there have been waived. What a high price Japan is paying for friendship with China!"

As opposed to this, a writer in the *Chugai Shogyo,* makes the following sweeping confession of Japanese offenses in China, while counselling his fellow countrymen to make use of America's clean reputation and abundant funds in their exploitation of China:

> "Japan, if she kisses China on one cheek, slaps her on the other, and the Chinese are at a loss how to meet this attitude. Further, the Japanese look down upon the Chinese as a declining nation, and this has injured the harmony of Sino-Japanese relations. If Japan desires to win a strong place among the Powers after the war and if she wants an influential position in China she must take a different attitude towards China and must make efforts to win the heart of China. With a new attitude and financial aid, which China needs to-day, Japan can change Chinese sentiment.
>
> "The United States is capable of making an annual investment of 1,000,000,000 yen in the market of China; therefore, if possible, I desire to see the co-operation of Japanese and American capital in China."

The Chinese have come to doubt all Japanese protestations because they have found them so fluent and oleogenous in the expression of pleasant sentiments and cordial proffers of friendship, and so insincere in the practical application of the lofty principles which they profess. The Japanese have made a reputation for denying what is inconvenient and confessing what it is convenient to confess. They will even confess to their insincerity if they can make a point by it. Take for example the following statement from a semi-official commercial journal published in Tientsin. The editor of the paper is discussing the possible admissions of a Japanese captain concerned in the Chengchiatun fracas:

> "We are sure that the writer did not get that part of the story from any Japanese, because even if the Captain did actually give such instructions, the matter would not be admitted either by himself or by his compatriots."

When one studies Japanese confessions in the light of their political surroundings and the immediate questions of convenience or inconvenience, they do not carry much conviction. Viscount Motono confesses the sins of his predecessors and condemns those which he does not find it convenient to uphold. Baron Hayashi, when he returned to China last Autumn as Minister, after an absence of some years in Europe, came as the prophet of a new Japanese righteousness, and was heralded by similar confessions on his part of the sins of his predecessors. The Chengchiatun incident was coincidental with his coming. The Japanese-Mongol bandits have had a merry time in Eastern Inner Mongolia during his sojourn; he and the Terauchi Cabinet are responsible for the settlement of the Chengchiatun affair in the latter part of January, in which the usual humiliations are imposed upon the Chinese; under him the police box system expands in Manchuria and Fukien, and together with the report of Motono's confessions and his sweeping expression of good will towards China, comes the report of fresh trouble with the Mongol bandits, the report of a fight between Chinese soldiers and outlaws in which a number of the latter were killed, stripped, and discovered to be Japanese.

British publications in the Orient, in a natural attempt to be loyal to the Anglo-Japanese Alliance and to be as fair as possible to the Japanese, hail Viscount Motono's address as the inauguration of a new Japanese policy. "It is so honest, so straightforward," they say, "it must be sincere and genuine at last. Certainly the outrages which we report on the opposite page are the work of irresponsible individuals, whom the government does not support and whom it cannot control." And to some degree the Chinese echo this sentiment. They have become accustomed to associate fair words with painful shocks, but they are ready to give Viscount Motono their undivided attention. The vernacular comment is: "All nations are made over one pattern. They can't all be bad; perhaps this man is the regenerating exception," but if he is he will have to prove it; the Chinese must be shown.

In the settlement of the Chengchiatun affair neither the Japanese nor the Chinese were greatly pleased. The great majority of Japanese commentators upon the settlement say that Japan did not get nearly enough, a few say she was oppressive, while the Chinese of course insist that the Japanese were not entitled to anything. Many Japanese journals, however, are inclined to defend Viscount Motono's conduct of the case on the ground that the incident occurred in the Okuma regime, that the first pressure upon China was brought to bear by the Okuma Government, and that to make a consistent case of it without sacrificing Japanese prestige the Terauchi Government was bound to carry it through at the pace which the Okuma Government had set. For whatever reasons this theory is advanced, the Chinese are ready to accept it and do not judge Count Terauchi Viscount Motono, or Baron Hayashi by theChengchiatun incident. They will draw their conclusions from the present and future policy of this professedly altruistic Government. At present the Chengchiatun incident is only something to remember and gauge things by.

In August, 1916, in the town of Chengchiatun in Mongolia, near the Manchurian border, where Japanese soldiers and policemen had no particular right to be, a party of Japanese and Chinese soldiers had a fracas in which a few were killed on both sides. How it started, who started it, and who was in the wrong it is not discreet to say, for the Chinese and Japanese hold diametrically opposite views upon these points. The points were argued in a preliminary way for many months. Both sides insisted that their men were fully justified in all they had done and insisted that reparation was due from the other. They did not get down to business until January and then the Japanese came forward in their delightfully frank and naive way and said: "We've wasted a lot of time discussing who and what is right and who and what is wrong. Now we must leave right and wrong out of the settlement. The only vital question is, how much do we get?" Being bound down to the real issue, the Chinese dropped their trivial quibbling about justice and entered with enthusiasm into the discussion of the terms, with the result that they got off rather easily. They had to make formal apologies to various Japanese lords of Manchuria, they had to promise to punish the officers of the men who had resisted the Japanese soldiers on Chinese soil, they had to reprimand various high officials, and finally to pay an indemnity of $500 for the injured feelings of a Japanese pedlar, whose argument with a Chinese soldier started the whole trouble. The police-box question was left unsettled as a firm foundation for future trouble. The Chinese insisted that the Japanese have no right to establish Japanese police systems in Chinese cities, and the Japanese said that they were going to keep on doing it just the same, and there the matter ended for the time. Nothing in this settlement can be pleasing to the Chinese, unless they are glad that the terms were not worse. They have been fully convinced of the innocence of their men and of the justice of their cause from the first and their concessions in the settlement are not made to a superior right but to a superior force. That they conceded so little is gratifying to them, that they had to concede anything at all is naturally galling. The Japanese attitude in this case does not harmonize with either Baron Hayashi's nor Baron Motono's declarations of friendship and good will. But then it is explained as the inevitable afterglow of the Okuma policy, the policy of making the best of the "opportunity of a thousand years," so the Chinese must live through a little of the future before they pass judgment.

Although the Motono address commends itself on account of its tone of sincerity and has attracted more attention in the Orient than any Japanese utterance since the coming of Baron Hayashi, it partakes of the nature of all Japanese proffers of friendship and benevolence in one feature which is particularly irritating to the Chinese, its patronage. In their proffers of friendship the Japanese invariably assume the big brother attitude, or rather the manner of the younger brother who feels the responsibility of guiding and chastening a blundering, inept, and semi-imbecile big brother. As a ready explanation of any aggression which China and the outer world may criticize they have the excuse: "We are doing it for China's good, sacrificing much time, thought, and money to do it, and if China does not appreciate it she must be made to conform, for she will understand some day when she has grown up. If only China could see things as we do she would know how benevolent we are." The Japanese fail to see that the Chinese resent this attitude even more bitterly than the aggressions, themselves. Baron Motono in his address told the Japanese Diet that Japan is responsible for most of the progress in China in recent years. Explaining the growth of the Japanese police system in Manchuria and the establishment of the hated police boxes on Chinese soil in both Manchuria and Fukien, Japan's diplomatic agents in China invariably assert in a tone of injured righteousness that it is all for China's convenience and ultimate good. The Chinese, who are so well aware that Japanese civilization, under its very thin foreign enamel, was borrowed, lock, stock, and barrel from China and that Chinese influence raised the Japanese from the status of the Borneo Dyaks to the state in which the Occidentals found them, regard this assumption of patronage as something more than insincerity, they see malicious satire in it. Nothing is better calculated to arouse Chinese mistrust than this attitude of brotherly interest, and the result of it is that Chinese editors reiterate in their discussion of Japanese questions day after day, "we never have believed in the Japanese and we never can." A very well known Chinese writer and translator of English books, Mr. Wei Yih, recently wrote in an article contributed to a Peking paper:

> "Japan is by no means friendly to us, no matter how profusely she may declare her love for China and her anxiety for the preservation of our territorial integrity. I may be mistaken about it, and I hope I am, because we want Japan's friendship more than the friendship of any other country, *if it is genuine.*"

This sums up rather tersely and frankly the Chinese position. China wants Japanese friendship because Japan is very close to her, very powerful, very helpful in the way of commerce, and very much the same in her ways of thinking, writing, carrying on business, and ordering the fundamental functions of life. She hopes, against conviction, that she will some day be friendly with Japan on sincere and honest grounds, but she does not believe that she has Japan's sincere friendship now. She does not believe in Baron Hayashi, Count Terauchi or Baron Motono, but she is interested in their professions of sincere good will, and hopes that she will have cause to believe in them in the near future. Perhaps her hopes are somewhat stronger as a result of Baron Motono's address to the Diet, certainly she is more interested, but the last analysis of her whole attitude is—she wants to be shown.

ELECTRIC MACHINERY IN JAPAN

The electric machine manufacturing industry in this country has achieved wonderful development during the recent months, partly owing to the heavy increase in demand from domestic industrial workers and partly because the reduced supply from overseas has furnished a powerful fillip to the manufactures here. Formerly biggest types of machines could not be made here, and such goods as electric motors producing over 10,000 kilowatts, direct current motors for electric trams, were all imported either from Germany, England, or America. But now all of them together with different kinds of electric metres are manufactured here with ease.

The annual production of electric machines in Japan was only between Y. 6,000,000, and Y. 7,000,000, but now it ranges between Y. 15,000,000, and Y. 16,000,000, and there is clear sign that the figure will steadily increase.

The export of electric machines also shows a strong tendency to expand. Particularly since the outbreak of the conflict in Europe suspended the supply of those machines from Germany, the tendency has been intensified and the annual shipment of electric machines to China, the Dutch East Indies, and elsewhere has run up into such large figures as quoted below.—

1914	468,447 Yen.
1913	630,859 Yen.
1916 (From January to October)	1,870,744 Yen.

According to a veteran in this particular line of business, this tendency will continue even after the war and the hands of foreign manufacturers are released, when the import of all kinds of electric machinery will cease except some special types. The common aim of Japanese manufacturers is, says our speaker, to reduce the prices of Japan-made machinery by increased production and extend the market for Japanese goods through the entire East.

JAPAN'S BANKING TOTALS FOR 1916.

Japanese banking business at the end of 1916, compared with the end of the previous year, is as follows-—

	1916.	*1915.*	*Increase.*
Paid up Capital ..	274,378,000 Yen.	233,462,000	40,916,000
Reserves	118,579,000	104,814,000	13,764,000
Deposits	1,906,059,000	1,348,318,000	557,741,000
Advance	1,959,180,000	1,274,292,000	684,888,000
Negotiable Bonds in Possession ..	418,806,000	322,359,000	96,446,000
Cash on Hand ..	139,383,000	183,973,000	54,409,000

The returns are by the associated banks of the clearing houses of Tokyo, Osaka, Kobe, Kyoto, Yokohama, Nagoya, Hiroshima, Moji, Kanazawa, Hakodate and Otaru.

The returns for the Tokyo associated banks, are as follows:—

	1916.	*1915.*	*Comp. inc.*
Paid-up Capital .. Yen.	162,147,000	132,544,000	29,603,000
Reserves	67,584,000	56,778,000	10,806,000
Deposits	931,407,000	631,351,000	300,056,000
Advance	974,905,000	559,839,000	485,063,000
Negotiable Bonds in Hand.	254,686,000	199,372,000	55,314,000
Cash on Hand ..	97,058,000	68,572,000	29,486,000

The difference in the advances of the two years is due to the fact that the Japan Hypothec Bank joined the associated banks in 1916. The bank's advance amounted to 222,000,000 Yen in 1916.

HUNTING THE ELUSIVE DOLLAR

China's Miscellaneous Loan Projects

The recent prolonged financial stringency—which prevents the Chinese Government not only from paying its debts but from indulging in any freedom in the way of new legitimate adventure requiring capital—has been responsible for quite a miscellaneous assortment of loan proposals during the past month or two. Apart from the $1,100,000 (gold) advanced last year by Messrs. Lee, Higginson & Co., against Treasury Bills, and the $5,000,000 (gold) paid over later by the Chicago Bankers in connexion with the loan under negotiation with them, China has received nothing from outside sources for a very long time. She has been kept going by her own internal supplies, the chief of them being the surplus revenue from the Salt Administration, but the money they produce is sufficient to provide for no more than a hand to mouth existence, a state of affairs decidedly irksome to a country not yet financially organized and which has so many unexpected calls upon it for political purposes.

Efforts to induce the American financiers to conclude a large loan have been temporarily frustrated by a variety of causes, chief among them being the reluctance of the New York Bankers to re-enter the field without a declaration from the State Department reversing the policy which animated it when it caused the withdrawal of the American Group from the International Consortium of Bankers who made the reorganization Loan of £25,000,000 to China in 1913.

The Banking Consortium was formed, as is well known to readers of the REVIEW, to control loan expenditure in China, or rather to safeguard bondholders by preventing the extravagant use, or waste, of the borrowed money by the Chinese Government. The Wilson Administration caused the withdrawal of the American Group from this Consortium on the high moral ground that it would restrain the liberty of the Chinese, and would interfere with their domestic concerns, the Administration regarding the safeguards the Bankers proposed as providing possibilities for unnecessary intermeddling with rights which are distinctly Chinese and which should be regarded by outsiders as sacred. With the withdrawal of the Group went further American financial interest in Chinese affairs, and time has proved that instead of helping China the action of the Administration has had a reverse effect, while the provisions made by the Group have not proved to the detriment, but to the benefit, of China. America has been excluded from any voice in the matters embraced by the loan agreement, the chief being the creation and organization of the Salt Administration, which has proved a Heaven-sent boon to China, and this exclusion has certainly redounded to America's loss of standing if not of trade. At the time when the Group withdrew from the Consortium their departure was a matter of indifference to the other Bankers, for America had never been a field for the sale of Chinese bonds, and anyway they were then well able to find whatever finances China might require. There was no war afoot at that period. With the outbreak of war, however, the whole situation changed. All the members of the Consortium belonged to nations immediately involved—British, French, Russian, Japanese and German—and with the prolongation of the war the bulk of the world's gold gradually found its way to America, and that country unexpectedly became the possessor of a cornucopia from which belligerents soon began lavishly to draw and which placed it in the position of being the only country in the world really able to lend large sums.

Practically paralyzed financially by revolutions and internal unrest China sought in vain for further money from the war-bound Consortium, and had little encouragement from America for a considerable time. Appeals were made to the New York Bankers, who promptly pointed to the withdrawal order of the State Department, and refused to be interviewed. The State Department was in turn appealed to by China for its help, and it referred the appeal to the New York Bankers and was soundly snubbed for its pains. Efforts to cause the President publicly to reverse the order which forced the Group out of China were in vain, the President not being willing to be challenged as a turn-coat with a Presidential election some months off, even if he really had actually undergone a change of heart.

In the meantime China suffered, and after much searching for an independent firm of bankers, she succeeded in making an arrangement with Messrs. Lee, Higginson and Co., for a sum of $5,000,000 (gold) at an absurdly good rate, but before the whole sum could be delivered the revolution against Yuan Shih-kai exhibited a new phase and supplies promptly stopped. The sum of $1,100,000 only had been delivered, and developments subsequently took place in New York which indicated that the Group Bankers possessed sufficient influence to prevent the State Department being further able to assist China to capital. Many efforts were made by China to find a new money source, but inquiries always finally drifted towards, and with painful regularity collapsed against, the obstinacy of the Group. It became apparent that nothing could be done in New York financial circles without them, and when this lesson was properly learned the State Department, which was eager to see China assisted, decided to seek fresh avenues.

The Presidential election found Wall Street arrayed against Mr. Wilson to such good purpose that New York came along with a thumping majority in favor of his opponent, but the expectation that the country would follow the lead of the financial centre met with woeful disappointment. Mr. Wilson succeeded in spite of the great Bankers, and naturally enough he harbored no kindly feelings for those who not only snubbed him when he appealed to them on patriotic grounds to lend money to China, but who exercised all their influence to separate him from the powers and prerogatives of the Presidency at the most important juncture in the history of the world. No sooner was he firmly re-established in the White House than he sought means to answer the appeals of China, and he then turned to the wealthy Chicago Bank known as the Continental and Commercial, an institution which, according to Mr. Joy Morton, one of its Directors, now on a visit to the East, seeks no political concessions, but which has "accumulated a great surplus and is ready to place it where it will yield the best income." In securing the attention of this Bank President Wilson not only triumphed over New York but illustrated that the financial supremacy of that city was seriously challenged, if not in jeopardy, for the Chicago Bank received an option from the Chinese Government for a further $25,000,000 (gold) in addition to the $5,000,000 (gold) advanced.

The New York Group would have appeared to have succeeded influencing the house of Lee, Higginson & Co. to refrain from continuing the loan it had in hand, for notwithstanding that it also had an option on a large loan of from $25,000,000 to $50,000,000 secured upon China's best asset, the Land Tax, no more was heard from it by the Chinese Government, except that some conversations were proceeding in New York with a view to the old Group re-entering the Consortium, and that Lee, Higginson & Co. were a party to or were interested in those conversations. This removed them from the possible independent institutions from whom help might be hoped.

The Chicago Bank advanced the original $5,000,000 contracted for, but there was no haste about implementing the option for the greater sum, and China in desperation again approached the Consortium for assistance. In turn the Consortium protested against the Chicago loan as infringing its agreement with the Chinese Government, an agreement which gave it an option at the time it negotiated the £25,000,000 for any further administrative loan. The transaction with the Chicago house having, however, been designated an "industrial" loan the reply of the Government was obvious, and the protest of the Consortium, especially as it was financially helpless itself, went by the board. Inspired with the hope of having some hand in the reform, or control, of the Land Tax the Japanese partner in the Consortium worked strenuously to secure some further hold on the Chinese Government and made the proposal to the Consortium that Japan would advance through that body some $10,000,000 wherewith to bind the Chinese Government until either the American Group—with the large resources—could be got back into the Consortium or means could be found elsewhere. This offer was not accepted, but active conversations went on in New York in the meantime and the negotiations were transferred to London in January. At the meeting of the representatives of the Consortium on the 30th of that month, it was decided, according to Japanese reports, to invite the American Group to re-enter the Consortium, to advance to China some $50,000,000 to $100,000,000 (gold) to be raised in America and Japan; and to demand the Land Tax as security in addition to the surplus salt revenue. Mr. Konojo Tatsumi, the manager of the Yokohama Specie Bank, and the representative at the meeting of the Japanese interests, pressed for an agreement that the bulk of the advisers to be employed by China under the loan agreement should be Japanese. On what ground he based this claim for predominance over America was not given unless the following statement in the Japanese report contains it:

> "The question of advisers to the Chinese Government has not been entirely decided by the London conference although the principle was acknowledged that precedence shall be given to the Japanese. The session on January 30 decided to ask the opinion of the Governments of the Four Powers before finally deciding upon this matter. On the occasions of the former financial deals, Japan demanded the privilege of sending advisers. While other powers interested in big loans sent important advisers, Japan was not able to do so. She accepted the assurance from other powers that the next time a big loan was to be raised Japan should have the precedence over all the other powers. Besides, Japan's position in China to-day has become relatively more important. In addition to this Japan is to furnish a large portion of this cash for the present advance, so naturally Japan will send the largest number of advisers. These advisers are to be employed by the Chinese Government in connection with the big loan, but the work they will do could not yet be defined clearly."

This at least indicates an amount of assurance if nothing else, on the part of the Japanese, that is decidedly amusing in view of the fact that America would necessarily have to furnish the bulk of the loan. It is, however, quite consistent with their claims to predominance in Chinese affairs and the right to recognition of their occupancy of a "special position" in China, but whether it will receive consideration by the American Bankers remains to be seen. Certainly an answer can be given for China—and that is an emphatic negative. The one reason why China has previously refrained from pledging the Land Tax for a foreign loan to any international financial syndicate was because of the known desire of the Japanese to obtain control of any consequent reforms, and thereby enjoy the use of a special and important lever in the country. The Land Tax was offered first as the security for the Lee, Higginson loan solely and only because that house was regarded as an independent purely American concern. Had the Government entertained any idea that the matter would have developed any international phase the Land Tax would never have been mentioned. With international fingers threatening the pie it is certain that the provinces will raise an outcry if the Government now submits to demands to pledge the tax as a security, unless national bankruptcy can only be avoided by so doing. At the moment the Consortium, despite their conferences and their decisions (as reported through the Japanese), have not approached the Chinese Government with any suggestion that the Land Tax should be pledged, and consequently they have no ground for the freedom with which they discuss the question. Above all it seems somewhat premature for the Japanese to be counting the chickens before they have come from the incubator.

Finding the American Bankers comparatively slow in coming forward with further funds, and realising that the Consortium is a slender reed upon which to lean for immediate assistance, the Chinese gave consideration to the possibility of raising within the confines of their own country. Domestic loans have been tried before, some with good and some with very indifferent results, but there are optimists in the Government who believe that without any amendment of the conditions which have militated in the past against success of government loans it is possible that sufficient people with ready wealth, stalwart patriotism and abiding faith in officialdom are available to make a domestic bond issue a success. The most optimistic of these is the Minister of Communications. He recently came forward with the naive proposal to raise a loan of $200,000,000 (Mexican currency)—the biggest sum ever proposed for local consumption. The interest is to be 6%, the issue to be at 94. When it is remembered that the last domestic loan fell absolutely flat, and that the present Government is not considered to be permanent, nor is it really popular, the faith of the Minister of Communications in his standing with the people and in his estimate of those who have the money can be gauged. He proposes, of course, to make the flotation in four instalments, the first $50,000,000 to be issued in March, and the balance later. With the money so raised he hopes to redeem a couple of railway loans, complete the construction of other railways, build iron works, open iron mines, establish lumber yards, locomotive and rolling stock works, railway warehouses, enterprises associated with railways, electric undertakings, shipping concerns and the extension of telegraph and telephone services. These are enumerated in the document prepared and issued by him which is published below.

Although it may be considered grotesque to ask China in her present state to provide so large a sum of money, it is certain that if the country could have confidence in the Central Government it could easily provide infinitely more. On the surface China is poor, but, as we have many times pointed out, there is sufficient Chinese capital locked up in various foreign banks, or hidden away in secret places, to wipe out all of China's indebtedness, if the owners could only be persuaded to invest it. The Minister of Communications believes that he has the fairy wand which will, when waved, effect the desirable change in the national attitude towards the Government, and if he has the Government can deem itself particularly fortunate—for it needs the money badly.

Less ambitious, and considerably more modest, is the Minister of Finance. He, too, proposes to raise a loan, but only for $50,000,000 (Mexican currency) to assist in administrative work. The interest is to be 6%, but the issue is to be one point higher than the Minister of Communication's venture, to wit, 95. And how he expects to get the public to take his bonds up while a colleague is at the same moment endeavoring to extract a similar sum from the people, with a one point better inducement, is beyond the ordinary mind. If everything is based on the personal standing of the Ministers making the issues then the contest will be worth watching. We incline to the belief, in this event, that the Minister of Finance will have somewhat the better of the running, for Dr. Chen Chin-tao is not only known abroad as a competent authority on finance, but he also is likewise regarded in China. Mr. Hsu Shih-ying on the other hand cannot be said to be anything like equally well known in his own country, and, so far, he has not had the opportunity to make a reputation abroad.

In addition to these two loans the Sin Hua Bank, acting for the Government, is announced to issue on June 1 the second series of Premium Deposit Receipts to the amount of $10,000,000 (Mexican currency); the Ministry of Commerce, Industry and Agriculture threatens to issue Premium Industrial Bonds to the total of $10,000,000 (Mexican currency) in July; and there is talk of the Board of Navy issuing a Naval Domestic Loan of $20,000,000 at some date yet to be fixed.

Taking all the domestic proposals mentioned there is to be a competition to raise the total sum of $290,000,000: not a large sum for an organized country to raise, as the *Peking Daily News* points out, but one made up of methods which are likely to bring about "financial chaos worse than ever."

In addition to these proposed flotations the Government has endeavored to secure loans from Japan. One agreement was signed with a Japanese firm for a loan of $5,000,000 on the security of the mines of Shuikow and Taiping Hills but the strong opposition of the people brought about the cancellation of the security. Details of this loan which held out as a bait a later loan of $80,000,000 in case the consortium failed to meet China's needs are given below. A proposal was then made to allow the Japanese, as compensation for the security, to buy and smelt 60,000 tons of cash, which would be exported for the copper content. This, too, was opposed by the people, and the agreement was cancelled, a syndicate of Chinese then being formed to take up the business and provide the funds required. The agreement with this syndicate—known as the "Paoli Syndicate"—was placed before Parliament for consideration but it was so whittled down that no conclusion has yet been arrived at, the members of the Syndicate being dissatisfied and complaining in a notice to the Members of Parliament against unfair treatment, concluding with the statement that the whole business will "teach the merchants not to have anything to do with the Government."

While the air is thus full of loans, the Treasury languishes, nor can it be said when a change is likely to be effected and the financial state adjusted. With America hovering on the verge of war it is not likely that much money will be available for China even if terms can be arranged, though if China follows America's lead there is a probability that as sponsor America will see her through. In that is a hope for China, and probably an inducement to join with the rest of the world againgst the Central Powers. China has an opportunity in this way of making friends with Powers who will be bound to help her, so after all "good joss" may unexpectedly be found sitting upon her doorstep.

The bad state of the Treasury has, however, brought forward a number of critics, and certain members of Parliament recently saw fit to draw general public attention to the matter by asking various questions of the Government. As a matter of record the following statement by the Government might be of interest:

Lack of System in Taxation.—In former days the local officials of the provinces alone were entrusted with the collection of taxes. Since the Taiping Rebellion, separate offices have been established for the collection of likin; but still most of the principal taxes have been collected by District Magistrates. At the end of the late Tsing Dynasty more separate offices were established for the collection of new taxes, and during the Revolution, when Tutuhs of the affected provinces commandeered all the proceeds of taxes, the system of collection became very irregular. However, in provinces where independence was not declared the old system has been preserved, such as in the province of Honan and Szechwan. The Government has not deemed it advisable to introduce wholesale changes, before a careful study of the local conditions and circumstances has been made. The Ministry of Finance has already telegraphed to the Finance Bureaux of the provinces ordering them to institute investigations and submit detailed reports of their method of collection with the object of bringing about a uniform system in taxation. It is also stated in the interpellation that there is no necessity for the establishment of offices for the collection of Transit Dues and the official sale of Tobacco and Wine, as these organs would only afford positions for the friends and protégés of the Minister, etc. Likin has, ever since its introduction, been a curse to the people, and in order to abolish it, it is necessary to raise a large amount of money to make up the deficit caused by its abolition. Therefore, in December last year, the Ministry of Finance issued a special instruction to the Finance Bureaux of the Provinces ordering them to introduce the system of collecting Transit Dues. In foreign countries heavy taxes have been levied on Tobacco and Wine, and they have achieved much success. Some time ago a special Bureau was established in the Capital to supervise the Official Sale of Tobacco and Wine; but owing to the recent outbreak in Yunnan nothing has been effected. However we have again sent officials to the provinces to institute investigations, and as soon as the results of their investigations are forthcoming a set of regulations will be submitted to the President for approval, then we can expect to improve the system. The Ministry of Finance has exercised a strict supervision on the collections of the provinces, and it is therefore not true that corruptions have been practised and posts created for friends and protégés.

II.—Appointment of Incompetents.—It is stated in the interpellation that "seniority and ability are unknown in the Collectorates, which are places offering sinecures to the friends and relatives of either the Tuchun or the Chief of the Finance Bureau. Many employés have never once attended office, while their salary is sent to them regularly at the end of the month. The high local officials have never reported cases of corruptions and squeezes to the Central Government, while the Central Government has never made any investigation for fear of giving offence." It is true that in the First Year of the Min Kuo, when order and system were practically destroyed, all kinds of persons were appointed by the local authorities; but in the 9th month of the Third Year, a set of regulations was promulgated regulating the qualifications of the collecting officials. In the 7th month of the Fourth Year another instruction was issued ordering the Finance Bureau to submit a report on the past records of all collecting officials, and those who were not up to the standard would all be dismissed. It is therefore believed that the local authorities will do their best to weed out the incompetent ones and appoint well qualified officials in their stead.

III.—Management of the Government Treasury.—It is stated in the Interpellation that "after taking the wrong step of entrusting the Chiaotung Bank together with the Bank of China with the management of the Government Treasury, no distinction or division of work, has been made between these two Banks, hence their constant quarrels. Moreover, in provinces, the Tuchun and Shenchang have in some cases established their own banks with the management of Government Treasury." This trouble can be settled easily; and as soon as the Law on the Management of the Government Treasury is passed by the National Assembly and promulgated by the Government, there will no more be any irregularity. In provinces where there is no Chiaotung Bank or the Bank of China, they must act according to circumstances.

IV.—Debasement of Currency.—Since the promulgation of the Law on National Currency an amount of 100,400,000 one-dollar silver coins have already been minted, and more will be minted. As the real value of the brass cash is more than its face or market value, it is impossible to prohibit unscrupulous merchants smelting them. The Government has instructed the Mints to collect these cash and to re-mint them into copper cents. At the end of the late Tsing Dynasty Viceroys of the provinces minted large quantities of copper cents, making large profits thereby; and in order to prevent a further fall in their value, the Government in the 3rd Year of the Min Kuo, abolished and amalgamated several mints. The Ministry will adopt temporarily the silver standard and mint copper subsidiary coins. All the copper cents will soon be collected and reminted, thus securing uniformity in currency. As to the notes issued locally by native banks or by provincial banks, in the 10th month of the 4th Year a set of regulations was promulgated regulating note issues, and the Ministry has from time to time done its best to place more restrictions on these notes.

The $200,000,000 Loan

The scheme embodied in the Memorandum of Mr. Hsu Shih-ying, Minister of Communications, on the subject of a great internal loan for the purpose of developing communications, has received the approval of the Cabinet, and has been submitted to Parliament for approval. The proposal is that a loan of $200,000,000 should be raised in China.

Mr. Hsu, in the Memorandum outlining his scheme, states that all railways in this country have depended to a large extent upon loans for their construction. For their building and maintenance no Government subsidy or help has ever been received. On the contrary, the Government has drawn considerable sums of money from railway revenues. The liabilities at present incurred are so great that it is difficult to maintain operations and at the same time meet the interest on loans contracted, not to mention repayment of principal. Thus there has arisen a serious state of affairs with which the Ministry of Communications is called upon very urgently to deal.

Foreign and Internal Liabilities

At present the foreign and domestic liabilities of the Ministry of Communications amount to $420,000,000 and $65,000,000 respectively, making a total of $485,000,000. This is how the liabilities stand at the present time. The repayments due during the current year on capital and interest accounts amount approximately to $35,500,000, and the amount due next year will be $36,000,000. Thereafter the yearly dues will increase for a number of years.

Discussing the financial requirements of the present year Mr. Hsu says that out of liabilities of $35,500,000 the Ministry can at present only see its way to paying $20,000,000, thus leaving a deficit of $15,000,000; and means to meet this deficit must be devised. Bad as affairs are this year, it will be worse next year unless steps are taken to reestablish the whole position. The possibility of bankruptcy faces the railway administrations, if ways and means are not found to remedy matters at once.

The Two Paths

The Minister has in mind two ways of meeting the situation: one is to extend the business of the railways, and the other is to cut down expenses wherever possible. If both these paths could be pursued it would not be impossible to find funds to meet the annual liabilities, the Minister believes. But the problem is, how to meet liabilities of $500,000,000 spread over a period of thirty years, consisting of the repayment of capital of all loans raised for original construction and in some cases maintenance charges for short periods.

In order to meet the situation the Minister proposes to raise a large loan, to be called the Chiaotung Internal Loan. The underlying principle of the scheme is to utilize the wealth of the people for the development of the country and at the same time to make the nation the real owner of the national railways. There are numerous advantages in the scheme, including the redemption of foreign loans as they mature, and thus consolidating the railways as a real national possession.

Mr. Hsu concludes his preliminary memorandum by admitting that in view of the limited financial capacity of the nation some may doubt whether it is possible to float such a loan as this successfully. He anticipates this criticism by pointing out that in the 3rd and 4th years of the Republic the financial capacity of the people was proved by their subscription to internal loans, and these subscriptions were also an earnest of the people's interest in national affairs. He also points to the success achieved by the domestic loan bonds issued by the Peking-Hankow and Peking-Suiyuan Railways.

The Loan Regulations

The provisional draft of the proposed loan Regulations is as follows:—

(1). The proceeds of the loan are to be devoted to the development and expansion of means of communication, and the loan, which is to be issued jointly by the Ministry of Communications and the Ministry of Finance, is to be called the Chiaotung Internal Loan.

(2). The total amount of the loan shall be $200,000,000, to be issued in four series of bonds, each series totalling $50,000,000. The first issue shall take place on the 1st March of the 6th Year of the Republic, (1917) the subscription lists closing on the last day of the eighth month of the same year (31st August, 1917). The other three series shall be issued as and when the Ministries concerned shall determine.

(3). The proceeds of the loan shall be appropriated as follows:—

(a). For the Redemption of the Ching-tai Line	$12,000,000
(b). For the Redemption of the Tao-ching Line	$8,000,000
(c). For the Completion of the Construction of the Peking-Suiyuan Line and its Extension	$10,000,000
(d). For the Completion of various Railways now under Construction	$60,000,000
(e). For the Development of Iron Works and the Opening of Iron Mines	$25,000,000
(f). For Lumber Yards and Mills	$8,000,000
(g). For a Locomotive and Rolling Stock Works	$25,000,000
(h). For Railway Warehouses	$10,000,000
(i). For Enterprises associated with Railways	$5,000,000
(j). For the Extension of the Telegraph Service	$5,000,000
(k). For Extension of the Telephone Service	$7,000,000
(l). For Electrical Undertakings	$5,000,000
(m). For Shipping Development	$20,000,000
Grand Total	$200,000,000

The above amounts shall be subject to reduction in each case in accordance with the discount at which the bonds are issued as provided in Regulation 5.

(4). The bonds shall be issued in denominations of $10,000, $1,000, $100, and $10. They shall bear the seal of the Ministries of Finance and Communications and the signature and personal seals of the Ministers of Finance and Communications.

(5). The bonds shall be issued at 94.

(6). The bonds shall bear interest at the rate of Six Per Cent. per annum.

(7). The period of redemption for the bonds of each issue shall be ten years dating from the date of issue. Beginning from the sixth year after issue, one-fifth of the bonds shall be redeemed by drawn lots, the drawing taking place in Peking three months before the due date of repayment, the results of the drawing being published in the newspapers.

(8). For subscriptions to the first issue paid in before the last day of the fifth month (31st May), a bonus of $3 (the equivalent of six months' interest) shall be paid on every $100 worth of bonds, besides interest due. On bonds subscribed for before the 31st August only interest for the six months shall be paid. For bonds paid for that date interest will begin from the day of subscription.

This arrangement shall hold good for the later series of bond issue.

(9). The annual interest due shall be paid in February of each year.

(10). The interest for the first series of bonds shall be provided from the following sources:—

(a). $2,000,000 from the profits of the various Railways, with the exception of the Peking-Hankow Railway.

(b). $1,000,000 from the profits of the Telegraph and Telephone Services.

(11). The redemption of capital of the First Series bonds shall be made each year from the following sources:—

(a). $5,000,000 from the profits of the Peking-Hankow Railway.

(b). $3,000,000 from the Profits of various other railways.

(c). $2,000,000 from the Profits of the Telegraph and Postal Services.

(12). The Ministry of Communications shall establish a Chiaotung Internal Loan Bureau to manage the issue of the loan, and the Telegraph and Post Offices under the control of the Ministry shall act as agents for the issue of the loan, and for subsequent operations in connexion therewith.

(13). For the payment of Interest and Capital of the loan, Railway, Telegraph and Post Offices under the control of the Ministry shall act as agents, as well as certain Banks appointed for the purpose.

(14). The loan scrip shall be in the form of Bearer Bonds unless subscribers ask for registration.

(15). The Bonds shall be Negotiable Securities for all transactions.

(16). Bonds drawn for redemption shall be redeemed for cash at the various Railway, Telegraph and Post Offices under the control of the Ministry.

(17). The commission to be paid to agents shall be fixed by special order.

(18). Further detailed regulations regarding the Chiaotung Internal Loan shall be fixed by special order.

The Six per Cent Reorganization Loan

In introducing the Six Per Cent Reorganization Loan Bill to Parliament the Government said: "According to the proper way of administering the financial affairs of the country the Govenment in ordinary times may increase the rate of taxation and seek means for its improvement, but in case of emergency it may raise public loans. Since the Revolution of 1911, we have never enjoyed peace and tranquillity, and on account of the late Yunnan outbreak our burdens have been increased considerably. We have to disband the superfluous troops, reform the currency and to restore the normal condition of the country. Should we resort to the increase of the rate of taxation, we cannot afford to wait for the result and should we try to raise another foreign loan, many opportunities would be lost. Therefore we propose that a Public Loan of $50,000.000 be raised for reorganization purposes. As the nature of the present Public Loan is quite different from that of the domestic loans which have already proved a great success in the past few years, we should be able to get the former quickly subscribed by a special method. We have no doubt that during this time, when the Republic has been newly restored, the people and officials would be glad to do their best to make the present loan a great success. We have therefore drawn up a set of Regulations containing 17 Articles for discussion and enactment by Parliament."

Regulations Governing the Loan

Art. 1. The present Loan shall be called "Six Per Cent. Reorganization Public Loan," the amount of which shall be $50,000,000. Its proceeds shall be employed for the reorganization of the administration of the country.

Art. 2. The annual interest for this loan shall be Six Per Cent.

Art. 3. The bonds shall be sold at a net price of 95 per cent of the face value.

Art. 4. The interest shall be paid half yearly, that is, on the 31s March and 30th September of each year.

Art. 5. In the first eight years after the issue of the loan, interes alone will be paid, and the redemption shall commence from the 9th year being spread over 12 years. Each year lots shall be cast for the redemption of one-twelfth of the total amount of the loan.

Art. 6. The drawing of lots shall take place in Peking on the 31st August in each year, and the redemption of the bonds shall take place on the 30th September.

Art. 7. An amount of $4,500,000, representing a portion of the proceeds of the Transit Dues of the Government, shall be set aside as security for the payment of interest and the redemption of the loan.

Art. 8. The Ministry of Finance shall deposit a monthly sum of $250,000 in the Government Bank against the payment of the coupons; but the amount shall be decreased proportionately after the first redemption of bonds.

Art. 9. In connexion with the deposits against the redemption of the loan, methods similar to that provided for in the preceding article shall be adopted.

Art. 10. The payment of the coupons and the redemption of the loan shall be managed by organs fixed and appointed by the Government and its Banks.

Art. 11. No names of subscribers shall be inscribed in the bonds.

Art. 12. The bonds shall be of the following five denominations: (1) $10,000, (2) $1,000, (3) $100, (4) $10 and (5) $5.

Art. 13. The bonds or coupons, shall be acceptable for the payment of taxes, etc., with the exception of the Customs duties.

Art. 14. The bonds may be utilized as security or reserve funds of the Banks, and as security of all other Government organs, and they may be sold or mortgaged.

Art. 15. In case any person should try to injure the credit of these bonds, he shall be punished in accordance with the regulations punishing those injuring the credit of the Domestic Loans.

Art. 16. The high officials of the Ministry of Finance and Auditors of the Board of Audit shall supervise the drawing of lots for the redemption of the Loan.

Art. 17. These regulations shall come into force from the date of their promulgation.

Japanese $5,000,000 Loan

The following is a rough translation of the Agreement entered into by the Minister of Finance and the Minister of Agriculture and Commerce and the Asiatic Industrial and Development Company of Japan, represented by Mr. Honda, an ex-member of the Japanese Parliament, and Mr. Nagahama:

The agreement is a very loosely drawn up document and will probably require a commission of international lawyers to interpret it, if that is possible, says the *Peking and Tientsin Times* correspondent. There are three documents which can be summarised as follows:

Document 1.

(1).—The loan shall be named and styled an Industrial Loan. (2) The amount shall be five million yen. (3) The money shall be paid over five days after the agreement is signed. (4) The interest shall be 6% per annum paid half yearly. (5) The period shall be three years. (6) The agreement is written in Chinese and Japanese languages, but in the event of any dispute arising the Chinese text shall rule.

Document 2.

1.—(A) That the government of China and the Asiatic Industrial and Development Company shall co-operate in working the mines at Hsueh-kou-shan in Hunan. The terms of co-operation and the details will be settled after discussion with the Hunan Mining Bureau. (Mines referred to above probably tin). (B) Chinese Government and the Asiatic Industrial and Development Company shall work the Iron Mines in Anhui jointly. The profits are to be equally divided between the Chinese Government and the Company.

Art. 2.—In the event of the Chinese Government being unsuccessful in securing a second Reorganisation Loan from the Big Group, the Company will endeavour to raise a loan of eighty million yen for the use of the Chinese Government.

Document 3.

(1)—The two contracting parties must be in full agreement concerning the terms of the eighty million yen Loan.

(2)—If it is found impossible to raise the above mentioned loan of eighty million yen the co-operation in the working of the before mentioned mines will be cancelled.

(3)—In the event of the Company being able to raise the eighty million yen loan mentioned above the Chinese Government shall return the original five million yen at the expiration of three months, but an extension of six months may be granted by mutual consent for the repayment of this money.

(4)—In the event of the eighty million yen loan being successfully negotiated the Government of China will grant one of its sources of revenue as security.

(5)—Is the same as Article 6 of the first document.

While the above in no way pretends to be a correct translation of the agreement the main facts are there, and the reader can form his own conclusion of this peculiarly worded agreement which was signed on the 9th of September, 1916.

Explanation of the Loan

Criticism of this loan and an explanation thereof appeared in the *Peking and Tientsin Times* from its Peking correspondent as follows:

There is still considerable discussion in the native press concerning the Loan Japan has arranged with China and the loan it is alleged she has signed. The two loans which have been quoted as signed are: one for eighty million yen and one for five million yen. The following information concerning these loans obtained in one quarter and subsequently corroborated in another may be of interest to the general public. The loan for five millions of yen has been signed; the loan for eighty millions yen has not. There is no connection between the two. The loan for five million yen was signed between the Asiatic Development Company of Japan and Minister of Finance and the Minister of Agriculture and Commerce.

The negotiators for the Asiatic Development Company were Mr. Nagahama and Mr. Honda, an ex-member of the Japanese Parliament. It is interesting to note that this Firm is only of recent origin and was brought into being for the sole purpose of opening up industrial enterprises in China, especially mining, with Japanese capital. It is also interesting to note that this Firm carried on its negotiations unbeknown to the Japanese Legation in Peking or the Japanese Government at home.

This loan was signed between Dr. Chen Chin-tao and the Minister of Agriculture and Commerce, and the two Japanese representatives, on the conditions that certain mining properties in Hunan and Anhui should be given as security for the loan, one of which was to be worked under joint Sino-Japanese auspices, while the other was to be worked by Japanese capital, the Japanese advancing to the Chinese a certain portion of the money to enable them to retain an interest in the mines.

The reason that it has been rumoured that this Firm was connected with the eighty million dollars loan is due to the promise of the Asiatic Development Company made to Dr. Chen Chin-tao to the effect that they would assist him as far as lay in their power with regard to a future loan issue.

The truth about the eighty million dollar loan is that it was a proposition of the Minister of Finance to the Representative of the Japanese bank. As far as I can learn Dr. Chen Chin-tao informally approached Mr. Odagiri, Manager of the Yokohama Specie Bank and representative of the Japanese bankers in the Big Group, for a loan of eighty million dollars. Several discussions on this subject took place between the Minister of Finance and this gentleman, and the former was finally informed that it was impossible for the Japanese banking authorities to consider the matter unless the matter was put in the shape of a formal proposal from the Chinese Government.

When things had reached this state Mr. Odagiri informed the remaining members of the International Group of the proposals which had been made to him by the Chinese Minister of Finance. The report which has been circulated concerning the Japanese attempting to put through a large loan in defiance of the terms of agreement outlined in the International Group agreement is untrue.

We have been informed on good authority that the Japanese Government have entertained no such ideas, and that as a member of the International Consortium they intend to abide by the agreement entered into. This is supported by the action which the International Banking Group have taken with regard to the loan of five million dollars which the Chinese Minister of Finance has just concluded. Yesterday the bankers handed in a note to the Chinese Government—which in some quarters has been taken as a note of protest—but which is in reality a note of inquiry requesting the Chinese Government to inform them under what conditions the loan of five million dollars was arranged and also requesting to know what arrangement the Chinese Government has with the Lee, Higginson people. The reason that this has been done is because the Group have been approached by the Chinese Government for a loan of ten million sterling, and that it is necessary for them to know exactly what is happening.

RAINFALL OF CHINA

Mr. Co-Ching Chu, a student in the Graduate School of Harvard University, has constructed a new rainfall map of China, based on data for 44 stations for the period 1900-1911. Where the records do not cover this interval they have been reduced to it by comparison with neighboring stations. Three rainfall districts are noted. First, North China, with mean annual amounts of 20-40 inches (50-100 cms.). More than 60 per cent of the rain falls in the three summer months, with a maximum in July or August and a minimum in February. Second, the Yangtse Valley, with mean annual rainfalls between 40 and 60 inches (100-150 cms.), decreasing very gradually from the coast inland.

Winter rains are more abundant than in northern or in southern China, although the amounts are small. July brings the maximum at most stations, and December the minimum. Third, South China, with mean annuals between 60 and 80 inches (150-200 cms.) along the coast, and 40 to 60 inches (100-150 cms.) inland. The percentages of rainfall in summer increase again in this district. June, or sometimes August, brings the maximum monthly rainfall. The control of the rainfall by various types of storms and by wind directions is considered. In northern China the precipitation of winter (Dec. to Feb.) is all in the form of snow, in central China it is partly rain.

TWO SIBERIAN EXPEDITIONS

The Sayan expedition, which returned in the early part of 1916 has made a study of economic conditions in the fur-producing region of the upper Yenisei, according to the Russian Supplement of the *London Times*. The expedition was organized by the Department of Agriculture and conducted by the game specialist and Asiatic explorer D. K. Soloviev. It represents another measure on the part of the Russian government for the protection of an industry seriously threatened with extinction. In the particular, apprehension has been felt for the sable trade, reduced of late to one-sixth of its former dimensions. In 1912 a prohibition of the hunt was extended to Siberia for a term originally planned for three years, but the expedition considers necessary a renewal of the law for an equal length of time. The active measures of the expedition embrace the creation of two warrens, the Sayan of about 630,000 desiatims (1,700,000 acres) and the Kazyr-Suk of about 120,000 desiatims (324,000 acres).

Successful results were also obtained by the Yablonovyi expedition despatched by the Academy of Science under the leadership of V. Ch. Dorogostaiski. Explorations were carried out in the central portion of the Yablonovyi Range, a region occupied by Yakuts and Orochones, the latter a Tungusic tribe described by M. A. Czaplicka in her "Aboriginal Siberia." The expedition achieved its main objective in the collection of valuable specimens of the alpine fauna, including the local mountain sheep heretofore unknown in the European museums.

SULPHURIC ACID FACTORY

H. M. Consul at Dairen reports that the Government-General of the Leased Territory of Liaotung is contemplating the erection of a sulphuric acid factory. It is hoped the work will be sufficiently far advanced to admit of the manufacture of the acid being started in the Spring of 1917. The enterprise is on a small scale, however, the intended daily output of acid being no more than 20 tons. The market price of the acid is to be fixed by the authorities.

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CHINA'S GREATEST NEED: PUBLICITY

The always amusing, sometimes interesting and occasionally effective Japanese have developed one phase of their creed of intense nationalism to a degree of usefulness and potency that deserves the study and emulation not only of China, but of many other nations. That phase is publicity.

Especially since the beginning of the Japanese-Russian war the Japanese have skilfully and persistently pursued a policy of national advertising that has had a tremendous result in shaping public opinion in other countries where favorable public opinion is vital—notably in the United States—as the Japanese have desired to have it shaped. The Japanese have advertised their country, its resources, their people, and their alleged abilities until, largely, the other nations of the world have come to the very desirable attitude of taking the Japanese at the Japanese valuation of themselves, instead of assaying the Japanese independently.

The chief and disconcerting weakness of all peoples in the mass, no matter where they live, is their utter inability to think for themselves along any given line. The power of logical, connected thought is rare enough, individually, but, nationally, it does not exist in this world. Wherefore, those few people who can think logically and connectedly invariably do about as they will in the way of moulding and directing the thought of their fellow citizens. This process is universally observed in a domestic sense in any and every country, and it has its success because of the slothfulness of mind of the average man, the irksomeness of developing new lines, and the ease of the grooves of ordinary mental existence. In short, most lack of thought is due to lack of training in the first place and to acute laziness in the second.

American political managers long ago discovered that it is as necessary to advertise a candidate for the Presidency, and what he stands for, as it is necessary to advertise a brand of soap, or a new sort of automobile. Unless the public mind is directed to think in favorable terms of any stated product, or policy, or person, that product or policy or person may as well be thrown on the dust heap. Nothing will attain to it, nor will the public make any individual investigations of merits, no matter whether merit exists or not. The theory that true value always will be exemplified, that virtues win in the long run is comforting, but it isn't proved by practical working out. Emerson's claim about the man and the mouse-trap, which was to the broad and soothing effect that if you make a better mouse-trap than any other the world will beat a path to your door, no matter how remote, may inculcate patient effort and induce fond hope, but it will sell few mouse-traps, unless to the manufacture of these superlative traps there is attached a good exhibit of publicity.

Now, then, this is as true of a nation—idealists and altruists to the contrary—as it is true of a mouse-trap. And Japan has, with great skill and with great ability, utilized the truth of that premise in making a reputation for Japan, and the Japanese, in creating a long list of admirers and helpers, in building up a sentiment pro-Japanese elsewhere—in getting favorable publicity and helpful publicity in all parts of the world, but especially, in the United States of America. It has been, and is, a national policy of Japan—publicity. They have worked out a system that has had the most beneficial results. The Japanese National Advertising Company, Unlimited, has for members every Japanese who is capable of doing even the smallest bit of work to that end, and it is as firmly a policy of Japan, the nation, as is the exploitation of China for the commercial and political needs of Japan, as viewed by the Japanese.

The tendency of the times, regrettable as it may seem, is to take a thing, or a person, at the valuation set upon that thing, or urged by that person, by the party most interested. That, as has been pointed out, is chiefly because we are too lazy and too slothful of mind to make investigations for ourselves. The Japanese came early to understand this lamentable, but universal, manner of mind, not only among people, but in nations as well, and they utilized it by organizing for a national Japanese publicity that would induce—which was easy to do--a thought and feeling towards Japan that the Japanese wished to prevail instead of allowing other peoples to form their own estimates of Japan or waiting until those estimates had been formed.

It is safe enough to say that the skilful utilization of the various channels of publicity that were available to Japan—and that are available to any other nation—particularly China—has done more to make Japan the formidable factor in world's politics and world's affairs than any other side, seeming or showing of Japan, and the Japanese people. And the Japanese have worked out a system that must be admired as a practical advantage, whatever may be thought of it as an ethical proposition, by the world. It is thorough, far-reaching, and universal. It is always working. It watches every line of attack. It utilizes not alone the rich historical, ethnological and other unique features of Japan and the Japanese, and especially those that appear picturesque to the Westerner, but it ramifies to all modern activity and effort, and never fails to make it impress.

We see it working in its domestic and overseas completeness. In America, for example, there are Japanese societies, many of them, an East and West Press Bureau and a dozen others, and a constantly maintained staff of speakers, writers, and other publicity men, ever on the watch to get into print something favorable to Japan. In Japan there is the most perfect organization for obtaining and maintaining favorable opinion—friendly opinion, indeed—for Japan and the Japanese that exists in this world to-day. It is systematic, sedulous, and successful.

If any man of consequence, from America, let us say, where the Japanese need most support, comes to Japan, what is observed, unless, indeed, in the rare instance that the visitor knows what is in preparation for him and escapes it to make his own investigations? From the moment that person of consequence lands in Japan, until he leaves Japan, he is never for a minute out of the sight, or the control, of the Japanese. He is shown every attention, given social recognition, flattered by feasts and gifts, presented to the leading Japanese statesmen and business men, all of whom play their parts perfectly, and, if he is a man of great consequence, presented to the Emperor himself, or given a decoration.

That visitor does not, independently, get one impression of Japan, nor does he hear one thing about Japan, nor learn one fact about Japan, by independent investigation. *He hears what the Japanese want him to hear, learns what the Japanese want him to learn, sees what the Japanese want him to see,* and is fed and flattered and pampered and petted until he invariably comes to the thought that the Japanese are the greatest people in the world.

The reason for that, of course, is because vanity continues to be the monumental weakness of mankind. The Japanese make the visitor think he, himself, is tremendously important, and, naturally and inevitably, the visitor, having thus been elevated to the position of self-importance he has always felt to be his due, goes back to proclaim the discernment and progress and other admirable qualities of the Japanese, the clever people who realized this fact about him in such a gratifying manner.

Special testimony as to what the Japanese will do in the matter of entertaining the stranger within the gates was furnished in a speech made by Judge Gary at a luncheon tendered to him by the Japan Society of America at the Bankers Club, in New York:

"I urge all who have not seen Japan to see it as soon as is practicable," he said. "They will not regret it. In this connection I should mention the hospitable disposition of the Japanese towards the American. I have never seen it excelled. Any American gentleman who is known and is considered worthy and representative, will receive invitations by wireless for luncheons and dinners or other functions from *those who are in office or who have been in some way designated to speak for the sentiment of the people* (the italics are ours). He will be met at the ship before it is docked by a committee or delegation from the city he is approaching and *from the time he lands upon Japanese territory until he departs* (the italics are ours again) he will receive the kindest and most liberal hospitality that can be offered."

Of course, that is the Judge's idea, as it is the idea of many others who are thus entertained, of a tribute to worth and representation and so on, but those of us who know Japan know that it is a part of the great and effective publicity frame-up of Japan. And it works—it always works, and it is so easy and so inexpensive, considering the results.

In addition to this—and especial care is taken of men and women who come for the purpose of writing about Japan—the Japanese government maintains a monopoly of the press news distribution from, and in Japan. It lets nothing go out about Japan that isn't sanctioned by Japan. It holds a supervision over the Japanese press. It utilizes every avenue of publicity and sees to it that this publicity is favorable. It has its staff of men trained to give the right sort of information always on hand.

And, more than this, and most important, it maintains exactly the same sort of an organization in the United States. If any Japanese question comes up in America there always are Japanese in the big centers to present the view of Japan. There always are speakers to give Japanese opinion, and to impress Japanese ideas, at dinners, clubs, banquets, luncheons and wherever else. There always are Japanese to write to the newspapers and for the magazines, and to give lectures upon Japan, and for Japan. And the results have been amazing and prodigious.

On the other hand, what of China? Here is a country that, so far as natural interest, historical interest, human interest, political interest, and American interest go outruns Japan by ten to one. If a foreigner comes to China he gets what he can, and where he can—a distinguished foreigner, I mean. If a writer comes to China he digs out his own facts, unless he has the most important of introductions. If a Chinese question comes up in the United States there is no Chinese there to present the side of China or any in China, either. Indeed, it is not beyond the mark to say that, on the occasion of the Japanese demands, in 1915, the Japanese would have succeeded in impressing all that tyranny on China, completely as planned, had it not been for the few American and English newspaper correspondents in Peking at the time, working almost without support of information from the Chinese.

Chinese complain that China is at the mercy of every Power that cares to attack her, and it may be so, but why? Simply because China has taken no pains to make friends for China, to get support for China, to distribute and secure publicity for the real China. Most Americans think of Chinese as rat-eaters, with queues, long finger nails and so on, and know but little of the real China where the potentialities are so great, the opportunities are so many.

If the Chinese people are awake to their opportunity they will take a leaf from the book of Japan, and establish a publicity organization at home, and, better, and more useful than that, they will send to the United States a few men who can, by lecturing, speaking, writing and otherwise getting before the public, establish a Chinese propaganda. All the United States needs is to be informed about China, and who should inform them if not the Chinese? The cost would be negligible, and the results incalculable. China needs the right sort of publicity, and needs it more than any other nation in the world. If China does not take steps to put herself and hold herself before the world in this regard China need have no hope for the future. China is done, for no country will voluntarily take up the cause of China—no people. They must be made to think about China—made to! Otherwise they will neither think, nor care.

RAILWAY VERSUS OTHER TRANSPORTATION IN CHINA

When the question of the construction of any new railway in China comes up for consideration the financiers interested invariably find themselves compelled seriously to ponder the possibility of water competition militating against the commercial success of the completed line. This is due to several causes. There are so many canals in most parts of China and so many natural waterways in the central and southern portions of the country that tremendous regions are accessible. Time is so small an object with the Chinese that speed of travel and quickness of delivery of goods have always been regarded as of little consequence, and the European has come to accept as a fact that so long as a Chinese ultimately gets to his destination the time and trouble absorbed in the effort mean nothing. The unskilled labour necessary for the poling or tracking of junks over the difficult rapids, or through the long distances of the plains when wind is not available, or the porterage of merchandise over roadless mountains, is so plentiful and so cheap that it has become a sort of axiom that it can meet the competition of railways in all circumstances. In many cases, of course, it can, but that there are exceptions is shown by the article from the Takutang correspondent of the *North-China Daily News* printed elsewhere in this issue.

The chief point of interest developed by the article is that there is a distinct and significant change coming over the Chinese traveller. He is growing out of the philosophic idea that nothing matters so long as he eventually gets whither he is bound, and the time-table promptitude of trains is gradually forcing it upon his sluggish brain that the long delays attaching to junk and launch services are not after all things to be accepted without complaint and as unavoidable. "Eleven a.m. to five p.m. is quite a moderate wait," writes the correspondent quoted. That such a thing could be tolerated by a travelling public indicates more clearly than anything else the callously indifferent and docile state of mind into which the Chinese have drifted during the centuries. Thankfulness for small mercies is here personified—a spirit that may be excellent, but which undoubtedly has been a complete deterrent in China to national or civic development upon modern lines. It is because the Chinese have permitted themselves to believe that all inconveniences and difficulties are inevitable, and can be lived down with patience, that they will not stir themselves to make reforms. Thousands of years of travel over deplorably bad roads in dust and dirt and rain and mud and slush accustoms them to jolts and jars and familiarises them to such an extent with every menacing bog hole that they have come to feel no need for improvement so long as they can extricate themselves in one piece from difficulties. They would sooner strain for hours at the immersed wheel, and unload and reload their carts, than they would spend half the time thus required to fill up the offending holes. That is why there is not a good road in China. Hardships and difficulties have no terrors for the traveller. Distances are nothing because time is nothing. A journey from Mongolia to Tibet over thousands of miles of inhospitable country, and across arid deserts and mountain ranges from ten to fifteen thousand feet high, is a thing lightly to be talked of. A "long" journey may be from Manchuria overland to southern India, and even that would be undertaken without any compunction. The pilgrims to Tibet do the journey on foot and kneel every yard or so. Is it any wonder that a race inured to such hardships and unconscious of the advantages of comfort in travelling should fail so long to see the great value of the railway train?

That the Chinese should have resisted to the utmost the introduction of the locomotive need not be surprising, nor need one be astonished to find that the existing railways are not up to the standard of those operated in other countries. What is encouraging is that in the regions where railways do operate the people are becoming increasingly appreciative of their advantages; and are willing to put up with a service which in America or Europe would not be considered fit for cattle. In fact on all the railways in China the lower class Chinese do travel in what in any other country would be cattle waggons. On the old established lines the third-class car is merely a shell with or without wooden seats placed along the sides. In these the coolies herd with their miscellaneous bundles, and sit on the seats if they can, on their bundles if they cannot get a seat, or on fellow travellers if they cannot find a seat or space to adjust a bundle. On the newer lines such as the one from Tientsin to Pukow the coolies ride in open trucks. Thousands of them can be seen any day in frozen winter or broiling summer travelling like packed sardines, all in good humour and apparently enjoying to the full the unrestricted view; and quite oblivious of the swirling dust which makes travel across the great plains a trial even in the cars provided for Europeans. In the second-class compartments there is no comfort for long journeys. The travellers herd together with all their possessions, pile them between the seats made to hold two people, up on the limited rack space, or in the corridors, and on these goods and chattels the owners perch, and over them other passengers scramble and tumble every time they wish to move. And they travel in this discomfort and tumble time and again over the other fellow's bedding and dishes and baskets without a grunt of disapproval.

Because they know nothing of the methods of railway operation elsewhere, and because they think that what they get is much better than their forbears ever could have imagined in their wildest dreams, they make no complaint of the service, and strive in no way for betterment. And because the passengers say nothing the railway officials (who are Chinese, of course) of their own volition do nothing to improve conditions or even keep the cars sanitary. The same can be said of what are called the first-class coaches. They are abominable in their filthiness, and no other country in the world would tolerate them even for the purpose of carrying coolies. Shortage of money is the excuse for not installing up-to-date passenger trains: and peculation, it may be said, is the chief cause of the shortage. These conditions could be corrected quickly, of course, if the lines were under proper management, and they are only allowed to exist because the Chinese claim that they know all about railway practice and need neither foreign help nor supervision. The disabilities of travel are mentioned here, however, merely to emphasise how little the Chinese ask of those who are catering for their transportation, and to indicate what a potential field China is for railway development along lines calling for the plainest kind of passenger carrying equipment. The Chinese themselves make no demand for artistic furnishings or ornate upholstery, or swank and swagger such as is seen on the first-class trains abroad. They do not even demand cleanliness. A roof, a floor, some sides, and some wooden slabs for seats, will suffice, though they are content to do without the seats; and, as shown, even without the roof and sides. So the railway builder has nothing to fear in the way of criticism if he does not instal the latest type of Pullman for the use of the Chinese. The unhappy feature of this state of mind is, of course, that the European passengers are also compelled to put up with shockingly bad accommodation and this is a condition that the railway authorities should bend every effort to correct, for the encouragement of tourists should be one of the main industries of the country—as it is in Japan. What will happen if a change is not made, will be that travellers bound from Shanghai northwards will, unless in a great hurry, abandon the railway and take passage by steamer to Tientsin, and thus a source of substantial revenue will be lost.

Apart from the foreign traffic, however, the fact is worthy of note that the Chinese are undergoing a tremendous change of mind and habit owing to railway development, and more and more of them are travelling, and will travel with the expansion of the services. The existing railways now carry almost all the Chinese passengers that the present rolling stock can transport; and there is nothing more certain on this earth than that every new railway built in the country will find all it can desire in the way of native passengers at least. And freight, like the passenger, will ultimately abandon the slow, tedious, and damaging methods of transport that have so long been the only ones in the country, for the quicker and the safer railway. Already some of the lines have all the freight they can carry, but with proper traffic management under foreign experts would increase the earning capacity and the effectiveness of the railways a hundredfold, and supply the people with an infinitely better service.

JAPANESE TACTICS IN CHINA

Plea for the American Government to uphold the "Open Door"

[By Americus]

With the prospects of a cessation this year of the war in Europe there is naturally a great deal of speculation in regard to the future of China as it will be determined by the conference of the nations immediately following upon the consummation of peace. In the recent notes of President Wilson to the belligerent and neutral Powers it is significant to note that President Wilson has without hesitancy stated that the United States desired to participate in any movement that meant world peace. China today, undoubtedly, is in perfect sympathy with the spirit of the American notes, and if it were possible would more than gladly participate in any conference that could assure a world peace without doing damage to her political integrity.

It would be idle to feel that President Wilson has in mind any fear of harm to the United States as a result of European aggression upon American soil. There could be no such thing. While it would not seem likely that the United States has any immediate fear of danger resulting from Japan, yet the Pacific basin is undoubtedly a matter of concern to the United States and no effort should be spared to create a situation that in itself will entirely do away with any possible need of alarm.

The United States has been severely criticised, and rightly, because of her lack of a defined foreign policy, and from recent events it is more than apparent that President Wilson and the people of the United States have at last realized the necessity of a strongly defined policy which will protect Americans and their interests in foreign lands. With the daily increasing capital laying idle in American banking institutions, and the consequent tendency to invest abroad, there is a very strong need for the safe-guarding of foreign investments made by Americans. The one great field for the use of American capital is found in China. It is obvious that after the great war has come to a close, hundreds of millions of American dollars will find their way to Europe to help in the rehabilitation of the devastated countries; but nevertheless there cannot be a more productive field for American capital than China.

During the past year serious efforts have been made by the American financier to employ capital in the development of China, and this activity has elicited quite an amount of adverse comment from the Japanese. In the many great Japanese dailies constant reference will be found to American activities in China, and up to five or six months ago this comment was of the most antagonistic nature. The United States was held up to ridicule, and the lack of preparedness in the United States has been used with great effect in encouraging the Japanese public to believe that were the United States to undertake to defend her interests it would be a simple matter for Japan to bring the United States to a speedy realization of her weakness.

Of late, the Japanese press has changed its attitude quite considerably, and this is undoubtedly upon the definite instructions of the Imperial Japanese Government. War with the United States is, of course, a thought which only finds room in the brain of the "jingoes." The real Japanese statesman, and there are a few, does not for a moment seriously consider war with that nation which to-day furnishes practically 50 percent of Japan's foreign trade and has thereby made it possible for Japan to build a merchant marine. But the Japanese Government has used the war scare to great advantage among its own people, and has also through its publicity agencies in America, employed it there with the peculiar subtlety that goes with an Oriental mind.

While it is unbelievable that the United States would for a moment be frightened by the threat of war by Japan, yet the subtle manner in which the Japanese have used the war scare has gained for her many converts in America—converts not to the belief that Japan wants war, but to the idea that it would be useless to drive Japan to resist by force of arms the treatment accorded Japanese subjects by the coastal States of America. To-day we find in America many advocates of a better understanding between the United States and Japan. These pro-Japanese publicists are largely men who have been ensnared by Japanese flattery and, having succumbed to the subtle influence, have openly championed the cause of Japan in America. A condition that cannot escape American attention, however, is that while the world has been unhinged by war Japan has taken advantage of her position to encroach upon China in such a manner as to have violated every pledge made by her to the foreign Powers. The Twenty-one Demands made on China by Japan need not be considered, as the spirit of those demands is evident in every transaction between the Governments of Japan and China to-day. What the ultimate view of America in this respect will be remains to be seen, but it is fairly certain that President Wilson will undoubtedly formulate a foreign policy which will serve to keep the United States out of war, and thereby contribute to the peace of the whole world. In the creation of such a policy it is useless to consider for a moment that the United States can ever be at war with any European nation. Believing this to be true, it is only logical that President Wilson will turn his attention to the Far East. While there is very little thought given to the much discussed "yellow peril," yet this very peril is becoming a real cause for alarm, not only to the United States, but also to those Powers in Europe that have suffered by war and will after peace hate the very name of war. In preserving the peace of the Far East the United States is not doing so to avoid the possibility of war in future. The predominance of Japan in China in a purely commercial way is not to be feared, and she rightly deserves this predominance if she gains it by purely commercial means. The resort of Japan to force in carrying out a policy of Japanese domination of China will lead undoubtedly to the subjugation of China, a result which cannot but spell trouble to the white races. This statement is not made to cause any alarm, but it is a simple statement of fact which is often ignored by the average man in America who has learned to think of nothing outside of his own country and has never for once considered the United States as a part of the world, but as the world itself.

The recent activities of Japan in China cannot be lightly passed by, as it is most vital to the future peace of the United States that Japanese activities in China to-day be carefully considered, and an attempt should be made to curtail any activity that would mean the actual domination of China by Japanese militarism. There is every reason to believe that with the idea that peace will within the next year be restored in Europe, Japan is losing no time in formulating and putting into effect the most vicious intrigues that can be imagined; but the Twenty-one Demands and the subsequent demands made upon China by Japan, each impairing to a certain degree the sovereignty of China, cannot in their viciousness be compared with the recent intrigues of the Island Empire.

In connexion with this policy it is certain that Japan now perceives that her greatest blunder was the quiescent attitude she adopted towards the overthrow of the Manchus by the Southern Provinces. It would have been to the advantage of Japan to have retained the Manchu family in power, because the intrigues of Japan could then have been carried on without the publicity that is now being given to her every move. The decadent Manchu Court was in such a state that it could have been handled very easily by the Japanese, and one therefore cannot but now wonder at the attitude of Japan in 1911.

With the placing of Yuan Shih-kai in the chair of the Chief Executive Japan found a very formidable enemy to her intrigues, and from the very day upon which Yuan Shih-kai took office the Japanese sought by various means to bring about his downfall. In 1913 the Southern rebellion was largely supported and engineered by the Japanese Imperial Government through its agencies in China, and would have succeeded had it not been for the rapidity with which Yuan Shih-kai handled the situation.

The Yunnan revolution of 1915-16 was chiefly financed by the Japanese, and Yuan Shih-kai died from the effect of this rebellion. No sooner had Yuan Shih-kai died than Japan immediately set to work to gain the confidence of the Northern group that had been defeated by her through the aid given to the Yunnan movement. None of the high officials who left Peking upon the death of Yuan were ignored by the Japanese Government. Every one was invited to make his home in Japan, and most attractive offers were advanced to bring about a complete surrender of the ex-officials (who are potential future officials) to Japanese influence.

The Parliament, re-assembled in Peking, did not, of course, approve of Japan, and a most antagonistic campaign was conducted by various party leaders against the yielding of China's rights to Japan. The Japanese Government in aiding the rebellion last year fully realized that this would be the situation. But they also calculated that they could easily gain control of the old official class, and by doing so create a strong party which would in turn fight Parliament and the South. The policy of Japan has never been one which is easily defined other than it has been the constant desire of the Imperial Japanese Government to keep China in a state of permanent turmoil.

To-day we find Japan greatly exercised over the activity of the American financiers in China. Japan knowing the weakened position of the Five Power Group because of the war in Europe, seized upon the opportunity to bring China to a state of absolute bankruptcy, hoping thereby to dominate in any new re-organization loan that would be necessary. It was the hope of Japan that she could bring China to her knees begging for Japanese financial assistance. Through the able manipulation of Dr. Chen Chin-tao a dollar has been made to go further for Governmental purposes than it ever has before in the history of China. The United States has also shown its willingness to come to the aid of this Minister of Finance in whom they have great faith, and it is safe to say that the personality of Dr. Chen Chin-tao more than anything else has caused the American public to believe in the possibility of safe investment by American capitalists on this side of the Pacific.

Japan believing that through her publicity agents in America she had frightened the Americans away from China thought that this great field was at last within her grasp. But the Chicago loan, brought about largely through the work of Dr. Koo, the Chinese Minister at Washington, strongly supported by the State Department has caused the Japanese to wake up to the fact that though her publicity agencies have accomplished a great deal, they have not really succeeded in scaring the American Government nor the American public. The Chicago loan is an absolute proof of the desire of the Washington Government to uphold the "Open Door" policy in China. It is known that the American Government gave heed neither to the formal nor the informal warning of Japan in regard to this loan.

The American International Corporation has signed railway contracts which will necessitate the expenditure of upwards of one hundred millions of dollars gold, and are planning for greater commercial and industrial activity in China. Never has China received before the attention in the American press that has been accorded her during the past six months, and every move made by Japan and every utterance of Japanese statesmen, has been recorded in the American newspapers, and to-day we find America awakened to a keen interest in the Chinese situation.

The Imperial Japanese Government, now fearing a quick solution of the European situation and knowing that Great Britain and France will not in any circumstances support her in the intrigues carried on in China, feels that is absolutely essential that China be thrown into a chaotic state such as to necessitate the intervention of Japan. To-day we find Japanese money pouring into Peking and being used by such disappointed politicians as Liang Chi-chao and Tang Hua-lung, who are planning for the dissolution of Parliament. To all those who know President Li Yuan-hung, however, it is unthinkable that he would ever countersign a mandate for the dissolution of Parliament. The Japanese have now determined to carry out, through the aid of their Chinese allies, the overthrow, not only of Parliament, but also of President Li, and to-day Japanese are working most strenuously to bring about the immediate overthrow of the present Government and reinstate the Baby Emperor. One of the most pitiable facts to be recorded in this movement is that a certain American, well versed in Chinese politics, is to-day allied to the party opposing the Young China party and therefore is casting his lot with the Japanese and a group of Chinese traitors in bringing about the ruin of this nation.

The restoration of the Manchu family in itself is not so serious; but the consequent revolutions will be of such seriousness that undoubtedly China, in her present bankrupt condition, will come to a final collapse and Japan with her ever grasping tendencies and unsavory intrigues will then step in. The Japanese Government to-day only fears the United States, and it is for President Wilson to see to it that the "Open Door" is maintained in China and that Parliament and President Li are kept in office. This could be done in a very simple manner. When Japan offered her advice to Yuan Shih-kai against the monarchical movement, her action was approved by the Powers of Europe, and we feel that if President Wilson were to-day to warn the Chinese Government of the danger ahead in the carrying out of the dissolution of Parliament and the overthrow of President Li with the object of the subsequent restoration of the Manchu family, we believe that this movement would be nipped in the bud.

It is needless to fear that Japan would take any action that would mean war with the United States. While Japan has accumulated a great deal of money during the war in Europe she can ill afford to spend a cent with war against the United States, and were she to do so she would at once lose the support of Great Britain and France. It is unthinkable that Britain and France would exchange Japan for the United States as an ally, and if Japan wants to bring about her own ruin, it would be far better for her to consider seriously this step before it is made.

In view of present conditions it is the duty of President Wilson to extend the "Monroe Doctrine" to the Far East, and as he has already advocated it for the whole world in respect to weaker nations, no better test could be made of this policy than an immediate interference in the situation as it exists to-day in the Far East. In warning China, a simultaneous note should be sent to the Imperial Government of Japan in terms that would be beyond question, and the Japanese Government and people should at once be made to realize that the future peace of the Far East is not only a vital question with Japan, but with the United States as well.

To many this article would appear to be from the pen of an alarmist, but such is not the case. It has been written by an American who is absolutely disgusted with Japanese political intrigues in China, and one who realizes that all the publicity "Nipponites" in America are merely employed in trying to frighten a nation and thereby cause the United States to avoid doing her duty, not only to China, but also to herself.

The only real solution of the Far Eastern question is an absolute understanding between Great Britain, France and the United States which will lead to a complete understanding by Japan of the real meaning of the "Open Door". The interests of these three great Nations are identical in China, and unless the Chinese Government will of its own accord reform her administration, such forces should be brought to bear by these three Powers that China will be compelled to carry out permanent reforms. It is not the desire of the writer to exclude Japan from participation in any movement to bring about a reform Government in China, but it is the desire of every right thinking person that such external pressure as is needed in the reformation of China shall not be under the leadership and dictation of the Imperial Japanese Government. We all acknowledge that Japan has as much right as any nation to develop China, but what we condemn and cannot condone is the domination of China by Japanese militarism. There is no need for the Powers to cultivate a second Germany in the Far East, and it would be criminal, both as regards the Powers of the world and Japan, to allow the Imperial Japanese Government to build up a fighting machine in the Far East which will bring destruction and suffering such as has been wrought in Europe by the German military power. There were many in England and France who strongly warned their own nations against Germany, and we feel that to-day, with the bitter experience of the present conflict, the nations of Europe and America will be easily induced to bring into operation a policy for the Far East that will prevent its recurrence.

CHINA ACTS WITH AMERICA AGAINST GERMAN SUBMARINISM

Issues Notes to Germany and America

President Wilson's message to neutrals, following close upon the severence of diplomatic relations between the United States and Germany, has brought China much nearer a breach with Germany and much nearer indirect participation in the world war, than Occidentals resident in the East imagined possible a few months ago, and certainly further than the Chinese themselves, in their boldest imaginative flights, ever expected to go. Inspired by America's example and by the personal visits which Dr. Paul Reinsch, the American Minister, made at the Ministry of Foreign Affairs, and at the offices of the President and Premier, on the occasion of President Wilson's message to neutrals, the leaders of all parties in the Young China group, and a fair percentage of the conservatives, were fired with enthusiasm, and became keenly conscious of the advantages to be gained by taking a stand with America against Germany's inhuman policy. In a few days they converted the most cautious and conservative members of the government to what the latter considered a rash and daring exploit, had the note to Germany written, and rewritten, and finally saw it despatched before a reaction in favour of caution could set in. The conservatives, for the most part, opposed the move; the militarists opposed it, the usual number of irresponsible parliamentarians belonging to extreme wings of the radical parties opposed it, and the native press, persuaded that Germany's strength is supernatural and that her vengeance will be far reaching and terrible, advised caution throughout. In the face of such opposition and against the dogged immobility of the conservative heads of the Government, the more intelligent element in the Young China group worked tirelessly, and so far as domestic politics are concerned, achieved a marked victory over the slow-moving "mandarinate."

The German Government published its note warning neutrals against proceeding into prescribed sea areas on pain of indiscriminate destruction by submarine, on February 1st. The United States severed diplomatic relations with Germany two days later, and on the 5th of February Dr. Reinsch had an audience with President Li, at which he delivered President Wilson's message urging the participation of all neutrals in America's attitude towards Germany. Four days later the Ministry of Foreign Affairs replied to President Wilson's message, handed the German Minister, Admiral von Hintze, a formal protest against Germany's announced submarine warfare upon neutral shipping in certain prescribed zones and a warning of a definite breach of relations in the event of such warfare being actually carried out. Following upon the despatch of these notes, a communique to the press was read to the assembled correspondents of foreign journals and the representatives of local papers.

The Note to Germany

The document handed to Admiral von Hintze read as follows:

From the Minister of Foreign Affairs of the Republic of China, to H.E. the German Minister.

9th February, 1917.

Your Excellency:—

A telegraphic communication has been received from the Chinese Minister at Berlin transmitting a Note from the German Government dated 1st February, 1917, which makes known that the measures of blockade newly adopted by the Government of Germany will, from that day, endanger neutral merchant vessels navigating in certain prescribed zones.

The new measures of submarine warfare inaugurated by Germany, imperilling the lives and property of Chinese citizens to even a greater extent than the measures previously taken which have already cost so many human lives to China, constitute a violation of the principles of public international law at present in force; the tolerance of their application would have as a result the introduction into international law of arbitrary principles incompatible with even legitimate commercial intercourse between neutral states and belligerent Powers.

The Chinese Government, therefore, protests energetically to the Imperial German Government against the measures proclaimed on 1st February, and sincerely hopes that with a view to respecting the rights of neutral states and to maintaining the friendly relations between these two countries, the said measures will not be carried out.

In case, contrary to its expectations, its protest be ineffectual the Government of the Chinese Republic will be constrained, to its profound regret, to sever the diplomatic relations at present existing between the two countries. It is unnecessary to add that the attitude of the Chinese Government has been dictated purely by the desire to further the cause of the world's peace and by the maintenance of the sanctity of international law.

I avail myself of this opportunity to renew to Your Excellency the assurance of my highest consideration.

(Signed) Wu Ting-fang.

The Note to America

The following is the text of Dr. Wu Ting-fang's reply to President Wilson:

From the Minister of Foreign Affairs of the Republic of China to H.E. the United States Minister.

9th February, 1917.

Your Excellency:—

I have the honour to acknowledge the receipt of Your Excellency's note of the 4th of February, 1917, informing me that the Government of the United States of America in view of the adoption by the German Government of its new policy of submarine warfare on the 1st of February, has decided to take certain action which it judges necessary as regards Germany.

The Chinese Government, like the President of the United States of America, is reluctant to believe that the German Government will actually carry into execution those measures which imperil the lives and property of citizens of neutral states and jeopardize the commerce, even legitimate, between neutrals as well as between neutrals and belligerents and which tend, if allowed to be enforced without opposition, to introduce a new principle into public international law.

The Chinese Government being in accord with the principles set forth in Your Excellency's note and firmly associating itself with the Government of the United States of America, has taken similar action by protesting energetically to the German Government against the new measures of blockade. The Chinese Government also proposes to take such action in the future as will be deemed necessary for the maintenance of the principles of international law.

I avail myself of the opportunity to renew to Your Excellency the assurance of my highest consideration.

(Signed) Wu Ting-fang.

The Foreign Office issued the following statement to the press:

Since the adoption of submarine warfare by Germany numerous citizens of neutral states have suffered injury or loss of life by the sinking of neutral ships. Amongst such persons have been many Chinese passengers and seamen on board foreign ships, as in the case of those who lost their lives on the

British steamer, Harpalyce, torpedoed between Rotterdam and Newcastle; others on two Japanese steamers, and on a French and a British merchantman torpedoed in the Mediterranean Sea. There have also been other cases.

On the 6th instant the Chinese Minister to Berlin telegraphed to the effect that the German Government had on 1st February notified him that it had prescribed certain war zones at sea and had requested that Chinese shipping passengers and cargo should not proceed within these prescribed zones so as to avoid danger, the prescribed zones being round the British Isles and in the Mediterranean Sea.

From this it appears that the German Government intends to use its submarines to disturb the world's commerce, the barred zones being of such extensive scope as to expose the lives and property of neutral citizens to considerable danger; and the Chinese Government cannot view the decision with indifference.

It is unnecessary to add that the attitude of the Chinese Government has been dictated purely by the desire to further the cause of the world's peace and the maintenance of the sanctity of international law.

The stand which China has taken in the penning of these various documents is frankly an emulation of America. The representatives of the Allied Powers in Peking brought neither pressure nor encouragement to bear, for they had no instructions in the matter, and China's position is simply that of a protesting neutral, with no direct affiliations with the Allies and no statement on record of Chinese official opinion upon the causes of the European war or the justice that lies with either side. When the question of severance of diplomatic relations came up abruptly for discussion, it is certain that neither President Li nor Premier Tuan had adjusted their minds to such an eventuality. Nor would either be hurried.

Apart from the arguments bearing upon the furtherance "of the cause of the world's peace and the maintenance of the sanctity of international law", other arguments were used by those in favour of an immediate and final breach which had a more material ground. It was pointed out that if America declared war and joined the Allies, and if China followed the United States in this extreme step, the Chinese would have a representative at the final peace conference which would give the Government a better opportunity for influencing the settlement of the various questions in which she is closely interested than would be possible if China were only a remote and voiceless witness of Japanese-German negotiations. It was also pointed out that by breaking with Germany China could certainly rid herself of the burdensome Boxer indemnity to Germany, which amounts to more than six million dollars Mexican currency per annum and very probably negotiate a reduction in the indemnities paid to the Allied Powers. It was further argued that by making common cause with America and the Allies, a sympathy for China would be aroused which would be readily convertible into financial support, which would be a great boon to China in her state of chronic poverty.

These arguments and the message from President Wilson made a strong impression, but they had to combat in the first place an ingrained fear of the Germans and a strong conviction, almost national in China, that Germany is going to be victorious in the war. German propaganda, working through very active German agents and the native press, has guided the Chinese officials and the reading public almost from the commencement of the war. The militarists, who have no little influence in political and diplomatic matters, are moreover German trained, great believers in Germany, and to some extent sympathizers with the German cause. A feeling also pervaded the government offices, that Japan would oppose a breach with Germany or too close affiliation with the Allies, and her resentment was feared even more than Germany's on account of her proximity.

During the four days and nights which preceded the delivery of China's note to the German Minister, the Cabinet met at all hours of the day and night, individual officials were kept busy sending and receiving telegrams and visiting everyone they knew whose influence was worth consideration, in earnest attempts to inculcate their own international doctrines. The leaders of the Young China school insisted upon an immediate breach with Germany, but the conservatives argued with some logic that as China had never entered a protest against any of Germany's activities, not even against those involving the loss of many Chinese lives, it would be a discourtesy and a sign of unprincipled opportunism to sever friendly relations so abruptly, without even the conventional diplomatic preambles. The note of February 9th was therefore a compromise, it being understood in esoteric circles that the next move would depend upon America's subsequent action, and in public announcements the world was given to understand that further action would depend upon Germany's reply to the document.

VICKERS' ENTERPRISE

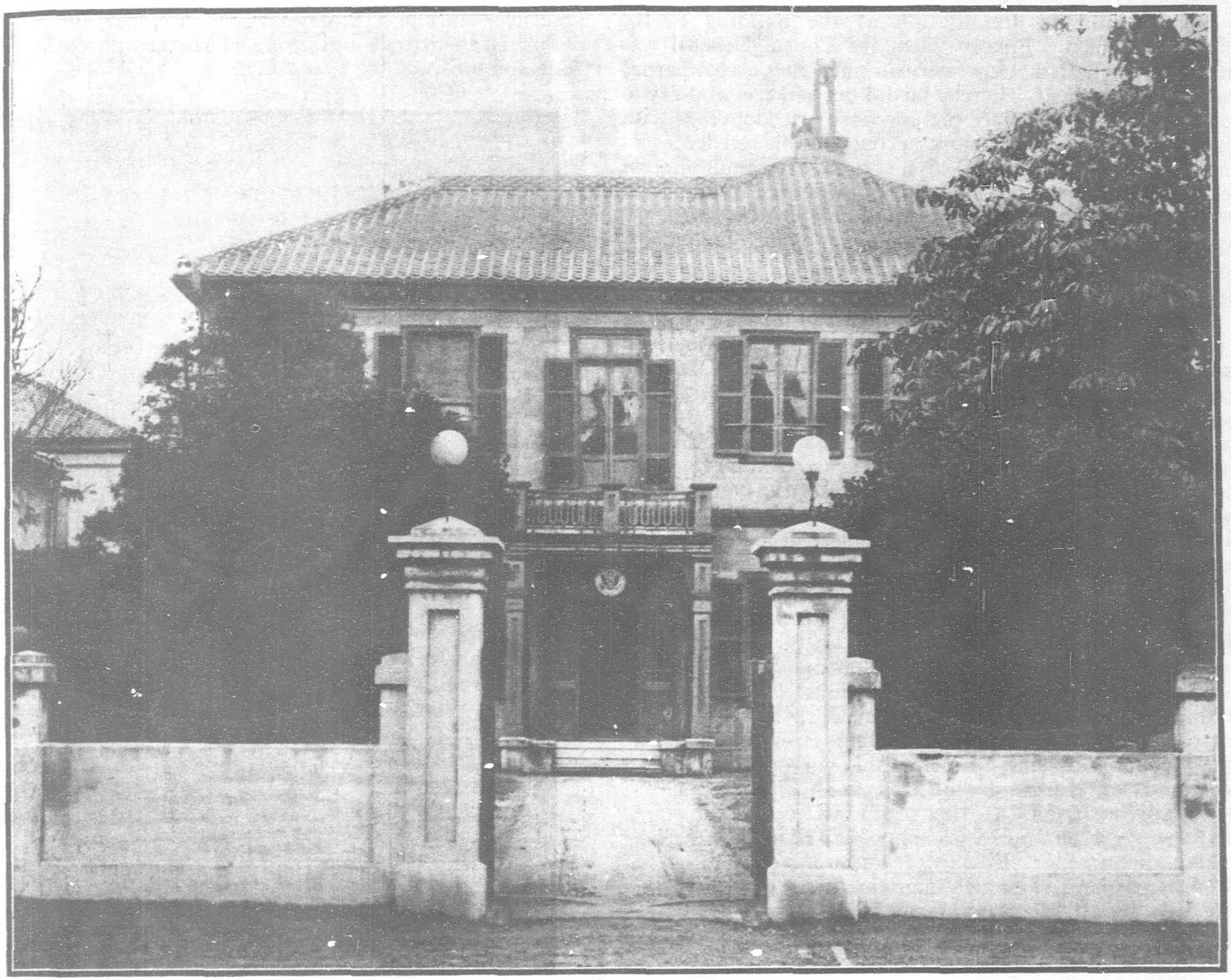
GREAT INDUSTRIAL ACTIVITY AT BARROW

Barrow in Furness, the home of Messrs. Vickers' great shipbuilding yard and naval construction works, was once described in pre-war days by the then First Lord of the Admiralty as "a great national asset." Amply justified as it was at the time, the description applies to-day with much more force. The activities of Vickers have been phenomenal since the war began, and 1916 must be written down as a record in regard to the output of those things so essential to the successful conduct of the war. One can only vaguely indicate the enormous expansion of the Barrow enterprise. In this prosperous Furness town warships of all classes are being built—ships *that can operate on the sea, under the sea, and over* the sea and land. Not only so, but the vast naval construction works produce guns of various calibre, while the production of shells for the heaviest as well as the lightest artillery has been colossal. In the manufacture of shells the company have now at work about 6,000 women to augment the efforts of the men. How many men are employed at Barrow on various kinds of munition work it is unnecessary to state, but some idea of the magnitude of the firm's operations may be gathered from the fact that, roughly speaking, £80,000 is paid in wages each week. The population of the town has increased by nearly 40,000 since the war began, which is another indication of the industrial developments.

To accommodate this great influx of munition workers has been a difficult problem. Over 600 houses have been erected by Vickers themselves, to say nothing of the efforts of ordinary builders, yet at the present moment there is a lamentable dearth of accommodation. Only the other week an advertisement in a local paper of a house to let—a very rare thing nowadays—brought between 300 and 400 applications, and people in search of a house have offered as much as £5 for the key. Several hostels have been erected, providing accommodation for hundreds of men and women, and just recently a large hall and school have been taken over and transformed into hostels for girls. The neighbouring towns and villages are also "full up," and several workmen's trains are run to and from Barrow daily. Messrs. Vickers have also built two large modern hotels on the Trust principle, and an institute, and they have erected and equipped a charming cinema theatre for the workers.

The girls employed in the shell shops, who come from families of all classes, have been remarkably quick to learn, and, generally speaking, a fortnight's instruction enables a girl to take charge of a machine. The firm have provided ten messrooms with a staff of cooks. There are also rest rooms. In fact, everything possible has been done by the company to ensure the comfort and meet the convenience of the women and men who have left homes in other parts of the country to take up employment at Barrow.

In its production of munitions Barrow is favourably situated in so far as the local steelworks have been able to keep Vickers supplied with the necessary materials. The steelworks have had a very busy year, their activities being only limited by a regrettable shortage of labour. An enormous quantity of new plant has been installed. What is to become of all this huge plant after the war? It will not be allowed to rust and rot. Vickers, while doing everything they can to aid the country in the present crisis, are adopting a wise policy with regard to the future. Their large works have to be kept busy after the war, and the company are negotiating for the purchase of additional land whereon to extend their shipbuilding facilities.



American Consulate General at Yokohama whose Building was bought and Presented to the United States Government by Hon. Thos. Sammons while Consul General at that Port

YOKOHAMA'S AMERCIAN CONSULATE

Yokohama has the distinction of being the only city in the world possessing an American Consulate building that was donated to the United States Government by an American Consular officer. Many years ago a building was built on the American Government site at Yokohama from which the builders derived rentals in the usual way, the American Government not having built office or residential quarters for its consular representatives.

In due course, the owners of the building failed to give satisfaction to the American consular officers at Yokohama. There were numerous complaints and, ultimately, one of the Consuls General bought the structure outright. He then became landlord as well as Consul General and rented the building to the American Government for consular purposes. Finally, that particular Consul General died and his executors in course of time disposed of the property at public auction.

This procedure resulted in another American Consul General buying in the building under the hammer, and he in turn became the landlord as well as Consul General. Then followed the process of succeeding Consuls General buying the building from their predecessors and renting the same to the United States Government.

Such was the condition of affairs when Consul General Sammons, after serving in Manchuria during the Russo-Japanese war periods, and in Korea at the time when the Hermit Kingdom was being taken over by Japan, was promoted to Japan as Consul General at the port of Yokohama. He inaugurated a new policy that resulted in presenting the building in question to his Government.

Mr. Sammons has for years been an ardent advocate of providing suitable permanent quarters in foreign countries for all American Diplomatic, Consular and other officers. At Yokohama, as at other leading ports elsewhere throughout the world, the American Government had not made appropriations for permanent quarters a part of its foreign policy. And the purchase of the building there by the Government not being in order, the Consul General set about to accomplish the desired end by other means.

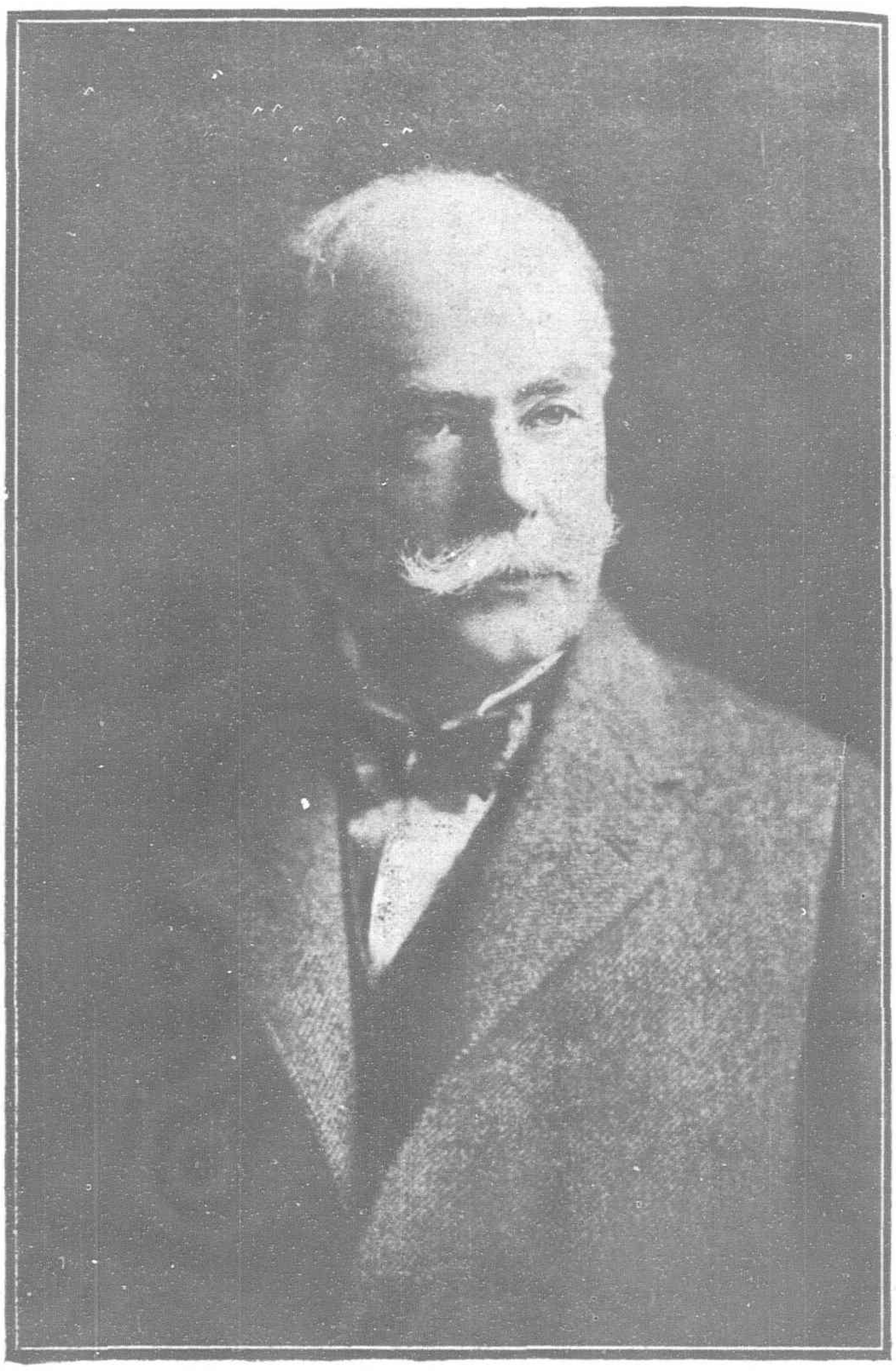
After purchasing the building in the customary way from his predecessor in office, Consul General Sammons proceeded to collect the rentals as previously paid. After making necessary and required repairs, the balance of the funds collected was placed in a sinking fund. Repairs were frequently required, as every earthquake usually dislocated the tile roofing and opened up leaks and cracks. In the meantime there was the usual agitation regarding the American Government buying quarters for its officers, being the same kind of discussion that is heard throughout the world in matters pertaining to what the American policy ought to be in this particular matter. Also, as is customary—aside from Shanghai where an appropriation fortunately has been secured—nothing came of the agitation.

Month by month for four years or more, Consul General Sammons' sinking fund grew and grew. Ultimately the sum total with interest added, warranted the opening of negotiations looking to the ultimate presentation of the building to the American Government. Finally, when the Consul General was promoted to Shanghai, matters were in such shape as to permit of a definite arrangement, whereby he did not sell the property to his successor in office and place the purchase price together with the accumulated rentals to his bank account as his predecessors had done, but he relinquished all of his right, title and interest and the United States Government was presented in due form with the American Consulate General building at Yokohama.

The upper part of the Yokohama consulate building is occupied by American officials and Mr. Sammons says he feels that provision of this kind should be made throughout the Orient and elsewhere. It was with that end in view that he joined, on arriving here, in the strenuous effort of the American community to secure suitable permanent quarters for all American officials at Shanghai. In making an industrial and trade promoting tour of the United States during his home leave in 1915, Consul General Sammons made it a point to refer to local, Shanghai, requirements in this regard and he reported on his return that everywhere he found Americans quite ready to support a movement of this kind. The Yokohama Consulate General building has four very large office departments and three ample hall spaces, together with a fire proof vault for all the Government archives, on the first floor. The residential quarters above are equally commodious.

With a balance in hand of upwards of $60,000 available after purchasing the American Government site and old buildings at Shanghai, it is believed an additional $190,000 would provide the chief port of the Far East with a suitable and representative American Federal Building structure that all Americans would be proud of. For this purpose upwards of $300,000 could, of course, be utilized to advantage, but with $60,000 already available as the result of Consul General Sammons having driven an exceptionally good bargain in making the purchase through Mr. Edward I. Ezra, it would seem that a united effort on the part of all Americans interested certainly may bring an additional $190,000.

With the wise and careful expenditure of this quarter of million dollars, Shanghai would have the most representative American Federal Building in the world outside of the United States. It already has the only extensive American premises for which a large appropriation has been made by the United States Congress. It is the ambition of Consul General Sammons to see Shanghai provided with a representative, modern American office and residential structure that will be a credit to all American citizens and interests, thereby promoting American trade and prestige.



Consul General Thos. Sammons, now stationed at Shanghai where a site has been secured for American Consulate

PHEASANT FARMS IN SOUTH CHINA

Laws of the United States against the importation into American territory of the skins, feathers, or other parts of wild birds give promise of leading to an increase in the number of pheasant farns in south China, although the raising of domesticated pheasants already is upon a very large scale, particularly in certain districts near Yunnanfu, Yunnan Province. Direct shipments to the United States are on the increase, and inquiries indicate that when the origin and nature of the products are better understood there the trade with America will increase even more rapidly.

At present the pheasant feathers and skins reaching Hongkong come almost entirely from the farms near Yunnanfu. There are 12 of these farms of some moment, one of them raising well toward 200,000 birds a year, while the total output is estimated to be in excess of 300,000 and may be much larger. The farming includes both the Golden and the Silver pheasants. The Golden are the more common birds, but there is comparatively little difference in the demand for either of the two varieties.

The birds are raised much as are ordinary fowls, the eggs being hatched in Chinese incubators and the chicks handled in native-made brooders on the larger farms, though the rule on the smaller farms seems to be to rely upon the hens for hatching. The birds are usually worth at Yunnanfu from $1 to $1.20 silver currency (from $0.40 to $0.50 gold) each. Of this value about half represents the value of the skins and feathers for export and the rest the value of the meat of the birds. Most of the birds are killed about the Chinese New Year and are used for food during the festival season, though there is a good demand for them at all times.

There is practically no distinction made in the price of the male and female birds as a rule. Before the war the business of shipping the feathers of these birds out of Yunnan to Hongkong and thence to Europe was largely in the control of German firms. Since the war the business has been taken up mostly by French and Danish firms. The immensely larger portion of the output of the farms goes to Europe, Marseille still being the chief center of the trade in Europe, the understanding being that many of the birds are there prepared for re-export to the United States and particularly South America. The skins and feathers are seldom used locally by the Chinese, a few being employed now and then in Chinese theatrical costumes, but seldom if ever as a normal portion of Chinese dress.

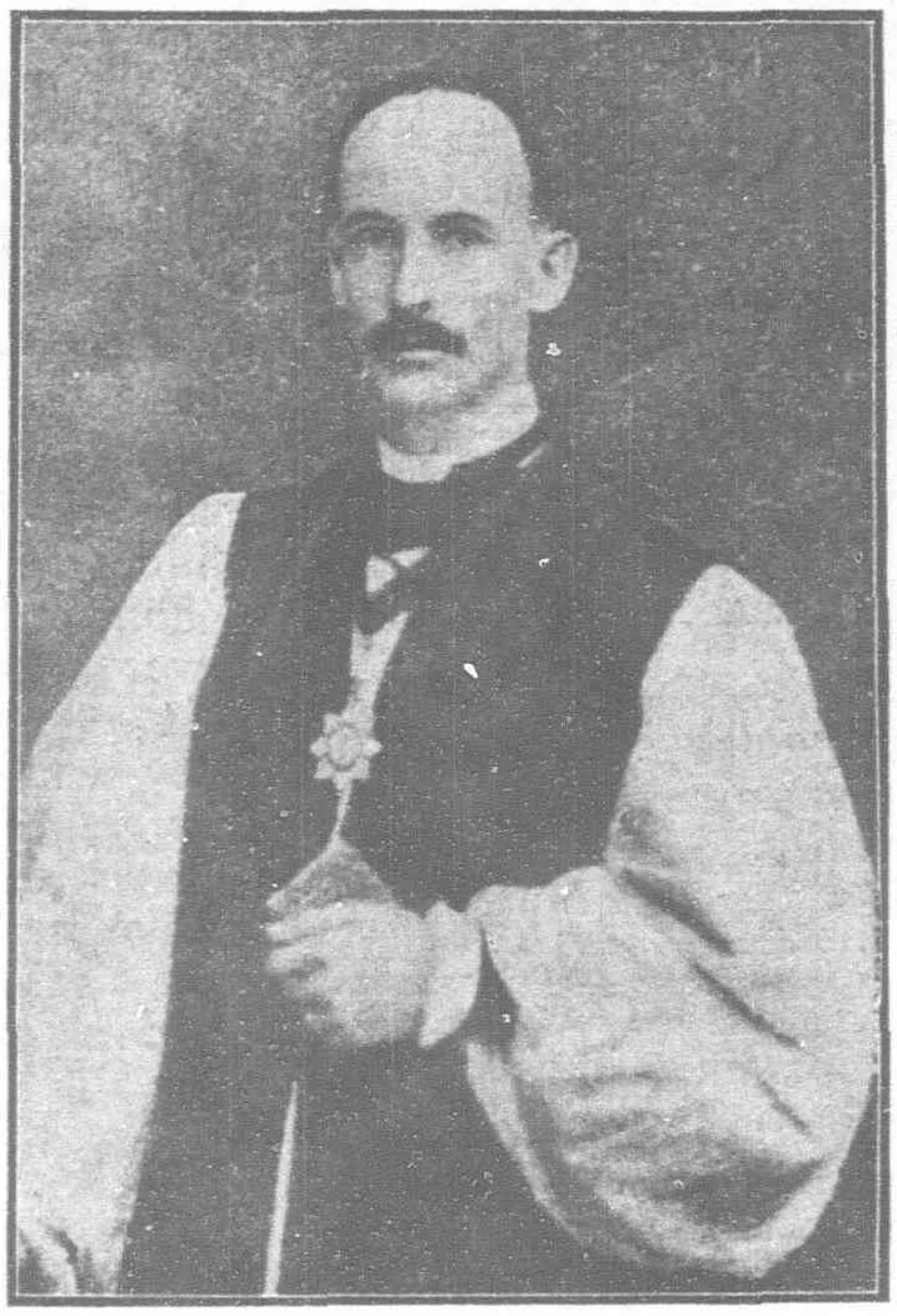
The skins are cured simply by immersing in a solution of carbolic acid for disinfection, by treatment with an alum preparation, and steaming and then drying. They come to Hongkong usually in small bales protected by matting, but the more valuable feathers and skins are separately wrapped in paper and packed in cases. They are usually exported from Hongkong in cases.

CHINA, THE NATION OF THE FUTURE

[By the Bishop of Honan]

In 1896 Lord Curzon prophesied that for China to yield to the forces of Western civilisation would "postulate a revival of the age of miracles;" but during these two decades, with ever-increasing momentum, China has swung into line with the awakened peoples of the globe and bids fair to eclipse them all. The world marvelled at the rapidity with which Japan, when her eyes were once opened, threw off the old and put on the new, but greater changes have taken place in the spirit of China during the last five years than ever took place in Japan or any other nation in a like period of time.

No nation has ever had such a long and continuous and progressive history as China. I say progressive advisedly, for although when she had reached a stage of civilisation far in advance of the nations of the time she became dormant and crystallised, yet there was still progress in growth of population, in production of literature, and in certain departments of the fine arts, such as porcelain and lacquer.



Bishop White of Honan

It is a wonderful history, teeming with interest, and the fringe of it has hardly been touched, for literally thousands of volumes of history, romance, poetry and folklore, covering many centuries, yet remain to be explored. But nothing can surpass in interest the kaleidoscope changes which have occurred in China during these last twenty years, and I venture to say that this period will always stand out as the most epoch-marking in the long history of China.

The great names linked to it are those of the Empress Dowager Tsu Hsi, and in a much greater degree President Yuan Shih-kai, who has just passed off the stage, and who throughout these twenty years has manipulated the wires of government with conspicuous sagacity and success, although sometimes by questionable methods.

My own connection with China began about twenty years ago, and it was significant that as our ship drew towards the China coast we should pass a fleet of ships, formerly China's navy, which Japan had taken from her in the recent Chino-Japanese war. And upon my arrival in Fukien I found the people very bitter towards the Japanese, for the island of Formosa, a part of Fukien province, had been ceded to Japan in that same war.

Although several things before this had acted as goads to arouse China, yet it was this war with Japan in 1895 which actually stirred the nation into activity. From that time reform proceeded apace. In the Imperial Palace the Emperor Kwang Hsu came under the influence of the Reform party, with the result that the conservative element became alarmed, and in October, 1898, the Empress Dowager, with the support of Yuan Shih-kai, brought about the great *coup d'etat* by which the Emperor was practically deposed, and she herself seized the reins of government. Then followed a period of deadly struggle between the old and the new forces at work, until the Boxer Movement of 1900, when Yuan again saved the nation, but this time from the results of blind conservatism. This Boxer trouble gave the deathblow to old China, and though some years elapsed before emancipation was accomplished, yet the power of the Manchu Government, and with it the opposition to reform, gradually diminished.

Then in October, 1911, the revolution broke out, which through the astuteness of Yuan, finally ended in the abdication of the ruling house, the inauguration of the Republic, and the installation of Yuan as the President of China. From one extreme China now passed to the other, so that the licence of reform threatened to shipwreck the new Republic, and Yuan had to exercise a restraining influence by practically assuming a dictatorship.

This was working well, and the nation was enjoying a fair measure of prosperity and peace, until last year, when the President, unfortunately not making sufficient allowance for the strong tide of democracy which had flowed over China of late, announced that he would assume the crown and restore the monarchy to China. The President was no doubt sincere in thinking the generality of the people wished him to become Emperor, for as soon as he saw his mistake he withdrew in the most apologetic manner.

But the harm was done, and the whole nation was suddenly torn in twain, the north standing for the monarchical position in favour of Yuan, while the south and west, not so much in opposition to the monarchical idea as against Yuan personally, declared their independence, and took steps to form a Southern Republic, offering the Presidency to the then Vice-President, Li Yuan-hung.

One failed to see at the time how a long and bloody civil war could have been averted, while it is certain that other nations having great commercial interests in China would have been drawn into it.

It is the general impression in the East that the evil situation was due more to Germany than to anyone else, and certainly there is evidence to show that Germany was working to stir up trouble in China which would have involved the Allies.

But by a truly remarkable interposition of Providence, China was spared this calamity by the death of President Yuan on June 6th last, and Vice-President Li, a man who is deservedly and universally popular, has taken over the office of President, to the satisfaction of all parties, so that China is once more a united nation.

The keynote of President Li's policy is thus stated in his first Presidential mandate: "I shall obey our Laws, and consolidate our Republic, with the object of creating a law-governed nation''—an object quite in keeping with China's love of reason and her dislike of force. To his small band of able foreign advisers the President stated that China was in a condition requiring reforms in every direction, and that it was his intention of using their expert knowledge to the utmost. Outlining his views on reform, he said the supremacy of the law would be upheld throughout his administration, and that general education was to be promoted to the utmost, for real reform would be impossible unless the people were educated. Industrial development would be the cardinal feature of his policy, also the extension of means of communication, and the introduction of modern sanitation.

The Chinese have a happy faculty of cleverly extricating themselves from tight corners, and of quickly adapting themselves to any environment. This is true of the nation as well, and leaving the very recent and ominous past behind her, China seems to have already accommodated herself to the bright and prosperous future which now lies spread out before her.

There are many weaknesses to be overcome, but an illness accurately diagnosed is an illness that usually can be cured with the proper remedies, and it is clear, especially from the President's statement of policy, that the leaders of China are thoroughly awake as to the needs of the nation.

The one great rock upon which the Chinese nation might go to pieces is the ineptitude for administration which the new Chinese leaders have shown since China became a Republic. This may be but a passing phase due to the change in principle of government. The genius for combination which the Chinese have shown in their guild systems was based entirely upon the standing and credit and faith of the individual, and the entry in modern times of the system whereby the impersonal corporation is endowed with personal rights and obligations is entirely new to Chinese economic life. This same applies also to politics, for China's government for centuries has been based upon a system of personal ties, and only now for the first time are they endeavouring to dethrone the personal and enthrone the impersonal in their government administration, and obviously there is great danger in attempting abruptly to introduce this impersonal system.

But making all due allowance for the present inherent and transitional weaknesses, China, besides having remarkable recuperative power has immense reserves of strength both in material resources, in the character of her people, and in the standard of her commercial institutions. A noted traveller recently lecturing on Japan and China spoke of Japan as having reached her zenith, and prophesied that she would soon be eclipsed by China, which he believed was the coming nation of the East, if not of the world.

Coalfields sufficient to supply the world for centuries are waiting to be developed, side by side with boundless supplies of iron and various other metals.

It is a land of such a varied character and climate that everything in the way of necessaries, as well as many luxuries, can be produced at home, so that when her own modern industries are adjusted to meet the present new demands, very little need be imported.

The abundant supply of labour to be found in China, and that of the very cheapest, is an important factor in the competition of world commerce. In my diocese of Honan, where there is a population of over thirty million, the wages paid at present average threepence a day to labourer and fivepence a day to a carpenter or mason, while a fair monthly wage would be from ten to twelve shillings, light and firing, food and clothing included.

China is now adjusting herself industrially as well as in every other way, but when the adjustment has been effected and the export of Chinese products in large quantities begins, it will revolutionise the markets of the world, and one fails to see how the white peoples will be able to stand the very one-sided competition.

The commercial astuteness of the Chinese is recognised by all. No man can drive a harder bargain, and this business instinct is common to all Chinese, young and old. A story is told of General U. S. Grant that upon his return from his trip round the world he was asked what was the most wonderful thing he had seen in his travels. And he told how, in a certain port, a Jew and a Chinese were in deadly commercial competition, and the Jew was finally outwitted by his yellow rival. To the General it was the most significant thing he had seen, and caused him to prophesy great things for China in the future. Incidentally, China is the only country where the Jews who took up residence there have failed to preserve their identity. At one time seventy Jewish clans at least were established with their synagogue worship in many cities, but after some two thousand years of continuous history in China their worship has ceased, the site of the last synagogue, together with its memorial stones, has passed into the custody of the Anglican Mission, and the remnants of these Israelites are now heathen and have been totally absorbed by the Chinese. This has never happened in any other nation, and speaks volumes for the virility and strength of character of the Chinese race.

There is a growing consciousness throughout the world that China as a nation will have to be reckoned with. The break-up of China has been prophesied, but to-day the Chinese people are more conscious of their entity than ever they have been. For a time the "Yellow Peril" loomed up as the menace of the world, and Sir Robert Hart, who from a life-long residence in China knew the Chinese better than any man of his time, made the statement that the only hope of protecting the world from this menace was either to partition China or to Christianise it.

The doors of entry into China have of late been widely opened, and the Chinese having become better known, there has been less talk of the peril, but more of the wonderful changes that are taking place, and the great possibilities for China. The term now most commonly used is: "China—the Coming Nation," and even with the stress and strain of this terrible war upon the world, men's eyes turn to China, and nothing happens there but in some way touches a nerve of another nation. The centre of gravity of the life and commerce of the world seems to be changing more and more to the Far East; and the Pacific, with its great new world of Anglo-Saxons on one side, and on the other the great newly awakened and teeming old world of yellow peoples, is without doubt going to be the commercial and industrial centre of the future. And after the war, when for a generation or more Europe will be slowly recovering from the deadening effects of the present catastrophe, China will be bounding forward by the propulsive power of this new life flowing in her veins.

China will never be a military or a naval menace, and a recent declaration by the new President clearly shows that his idea is only to have a sufficiently large army for the purpose of policing the nation. She will unquestionably in time have a large mercantile marine, which will be manned by the least costly sailors in the world, and those who have travelled on Pacific steamers with Chinese crews under foreign officers know what splendid service they can give.

The Chinese hate war or a resort to force of arms of any kind, and their tastes lie along the line of peaceful pursuits. Courage and heroism and bravery are not common characteristics of the Chinese, but they have a great love of home and family life, and honour letters, agriculture, and deeds of benevolence. Their power to prevent war amongst the nations in the future will not lie so much in the largeness or strength of their army, though they would be able to provide such, but it would be by economic pressure, for commercially and industrially they would be able to exert a preponderating influence. It would be suicidal for any nation looking to its future welfare to neglect such a readjustment of its affairs as shall have in view the closest and most harmonious relations with the Chinese people.—*The Quiver*.

LIAO HO CONSERVANCY SCHEME

A plan was drawn some time ago for the dredging of the Liao Ho so as to maintain the navigability of the river. According to it, the work was to be divided into two,—the conservancy of the river mouth and of the river itself. To obtain necessary funds for the execution of the scheme under the first category, the Consular Body of Yinkow under the sanction of the Diplomatic Corps at Peking commenced to levy an additional tax on import duty and tonnage dues some years ago, the regulation being now in force, but for some reason or other the work has not been taken up.

As to the dredging of the river, the operation was to be carried on the upper reaches between Yingkow and Chengchiatun. The question, in fact, was under discussion as early as the days when Chao Erh-sun and Hsu Shih-chang officiated as the Viceroy of the Eastern Provinces. The importance of the work was likewise recognized by the Peking authorities, but owing to the magnitude of expenses required nothing tangible has been done, although the scheme and its necessity are again being strongly urged on the government.

THE CHINESE AND THE RAILWAY

Triumph of Modern Methods Over the Old in Kiangsi Province

The following interesting article on the old and new means of transportation in Kiangsi Province was sent to the "North-China Daily News" by its Takutang correspondent:

The survival of the fittest is an old doctrine, but it still exists and we are having a demonstration of its existence in Kiangsi just now. For some months past a life-and-death struggle has been going on between the steamboats and the railway. The struggle was a keen one as the steamboats were prepared to die hard. Steamboats and railways unless owned by the same proprietor have always lived in a state of armed neutrality. The shipowners are about to give up what to them has been a hard struggle. The steamboat companies reduced their fares from Kiukiang to the capital; they catered as never before to the fast-dwindling passengers; they focussed on cargo; they towed large junks, but all to no avail. The railway service had gained the day and the steamers are now unable to compete.

The railway company made competition almost impossible. The novelty of a railway; a fast service; cheap fares; accommodating rich and poor; a safe instead of a precarious terminus, all these have more than staggered the steamer companies for more than two years. A Chinese appreciates a cheap thing, so the railway company ran what they called a "poor man's carriage." This consisted of an open truck, seatless and roofless. The poor man sat on his humble belongings, enjoyed fresh air, beautiful scenery and a hundred-mile ride for 50 or 60 cents. In a country like China where the rich man is not ashamed of being poor the "p'in ch'iong ch'ae" was naturally well patronized. Europeans and literati usually travel first and second class.

Punctuality by Train

Traffic, slowly but surely, centred on the railways. The train was timed to start at a certain hour and generally accomplished the astounding feat. There was a business-like air about the railway and unconsciously Chinese came to appreciate this. The novelty of eating your breakfast in Kiukiang and your dinner in Nanchang was sufficient to encourage travel by that route.

A Chinese steamboat is booked to start any time. Eleven a.m. till five p.m. is quite a moderate wait. One cold wintry day I boarded a Lake steamer at Kiukiang about two o'clock. I did so rather hurriedly as I was told it was about to start. However, I was disappointed. Three o'clock came and so did four and so did five and the steamer was still about to start. A European who had been on board since ten o'clock came upon deck. He looked at me with anything but a kindly expression and demanded in anything but kindly language when the steamer would start. To such a query I was entirely unable to give a satisfactory answer, nor could I direct him to anyone likely to know. Hours of waiting had made his vocabulary short and sharp. He had now waited too long to change his mind and go ashore.

When Do We Start?

Frequently we have been in the midst of tiffin when the steamer's departure has been announced. Gathering up our belongings we have rushed breathlessly to catch this Chinese steamer. On arriving alongside we heard the whistle blowing furiously and the steamlaunch showing every symptom of starting immediately. Steamboat companies announce their time of sailing in two ways. First, a white board is hung outside the steamship office announcing the fact that a steamlaunch will leave to-day. Second, the steamer will start blowing its whistle as early as seven a.m. and continue blowing at intervals till seven p.m. There is a reason for this. They blow for passengers and until they get them are not prepared to start. Indefiniteness characterizes all the steamboat companies plying on this Poyang Lake. No one can tell you definitely when the steamer will leave. The language one constantly hears is "chiu iao k'ai" and "k'uai iao k'ai" and "ch'a puh to k'ai."

When the steamlaunch starts there is generally a good deal of excitement. Numbers clamber on board just as the steamer leaves, while those who have entertained the weary passengers for hours seek the shore. Among the latter are beggars of a frightfully tenacious type, vendors of sweetmeats, foodstuffs, wearing appparel, cigarettes and wines; dancers whose screeching music nearly tears your waiting soul to pieces; and singers whose loathsome songs haunt you with their words. The passengers are divided into three classes: first, official class, second, middle class, and third, "awning class." There are no hard and fast distinctions.

Before the advent of the railway, steamboats up the Poyang carried a strange and motley company. The official with his retinue, the merchant with his wares, the student with his companions, the husband with his family, the European with his servant, are all more or less mixed up within the narrow confines of a lake steamboat. The large steamers have two decks, sometimes excellent accommodation is provided with rather indifferent fare. The "awning class" have simply rice, the middle class a little vegetable and the first class a small variety of Chinese dishes. No provision is made for the European traveller. He provides his own bedding and if unable to eat Chinese fare supplies his own foreign food. The date of arrival at any port is perhaps more indefinite than the time of departure.

Huk'ow, the first port of call, stands at the mouth of the Poyang Lake. Here two hours may be spent while a number of officials, high and low, ask you rather vaguely where you have come from and where you are going. At this place the Chinese have their luggage ruthlessly examined,—the reason given, the fear of bombs being carried into the province. Suspicious characters are also cross-examined; passing officials are visited by other officials from the shore; and merchants carrying merchandise pay likin at the Huk'ow barrier. As the steamer is hampered by no schedule the authorities are in no hurry one way or another. Your interests, or the importance of your business, or the status of the Chinese official make little difference to the steamboat company. There is a species of waiting to be gone through, tedious to you but not to the company. The officials on the shore wait on the steamer and the authorities on the steamer wait on the officials, and the passengers, in no decided hurry, wait on both.

A Midnight Landing

Another 10 miles brings the crowded steamer to Takutang. Midnight is now slowly creeping on and many of the passengers have retired. The night is rather stormy and the sampan has some difficulty in getting alongside a moving steamer. In the dim light of a Chinese lantern your luggage is dropped over and then you follow suit. "All clear" is shouted and the steamer proceeds in the darkness up the Poyang Lake. Places of interest such as the Orphan Island, the Frog Rock, the Fire Mountain, the Old Man's Temple and the Kuling Mountains are all passed in the darkness. Huk'ow is usually seen just at twilight. The beautiful temple on the Stone Bell hill is barely visible, while the city lying along the shore is only seen in outline.

To the European, the journey is interesting purely as a Chinese characteristic. The steamers entirely dispense with wharfs. Your embarkation may be dignified or otherwise; it depends entirely how you look at it and what position you hold. If you are prepared to take things as you find them, forget in the meantime your lordliness, sit demurely in a Chinese sampan, disembarkation can be, if anything more precarious than embarkation.

This mode of travel, once so full of interest, comes to a stop with the Chinese New Year. Several firms are winding up business, competition with the railway they find impossible. Financial distress has been very keen.

With the opening of goods traffic on the railway, merchants in the interior find they can get their goods to Kiukiang quicker and cheaper than by junk or steamer. Traffic on the Poyang is now considerably less compared with former years and the Customs and likin receipts have suffered in consequence.

SOUTH SEA TIMBER COMPANY

A score of prominent Kobe businessmen are engaged on a project for establishing the South Sea Timber Co. Mr. Sato Tamanosuke, who is said to be intimately acquainted with South Seas affairs, in July, 1913, obtained sole right to dispose of certain timber. On his return home, he executed the first transaction in August, 1914, supported by Mr. Sato Yutaro, a well-known shipping broker, and Mr. Kano Tatsuzo, proprietor of the Shinkyu Kumi. The enterprise, however, was brought to a standstill by the war owing to the advance in freights. Mr. Sato, the original promoter of the business, has now enlisted the support of a score of prominent businessmen, and has undertaken the establishment of the company above referred to. It will have a capital of 1,000,000 yen.

COTTON PIECE GOODS IN NORTHERN CHINA

According to the Report for 1915 of the Commissioner of Customs at Tientsin, the difficulty experienced in obtaining adequate supplies of cotton piece-goods from abroad has resulted in a considerable stimulus to the manufacture of these goods by local Chinese factories. Factories equipped with modern machinery were erected in several localities under Chinese management and using Chinese labour, foreign experts being engaged to teach the best methods of manufacture and how to make the best use of the machinery.

The products of these factories correspond in weight and design to the imported goods, and compete profitably in the open market with similar goods manufactured abroad, the tendency among buyers being apparently in favour of Chinese-made goods in preference to the cheap varieties imported from Japan, or the higher and more expensive grades coming from Europe and America. A group of Chinese merchants has also placed orders in America for the latest spinning machinery, to be used in two new mills for the making of cotton yarn. If these should prove a success, there is no doubt that similar plants will be erected in other parts of North-China.

THE RELATIONS BETWEEN CHINA, RUSSIA AND MONGOLIA

[By E. T. Williams, Formerly First Secretary of the U.S. Legation, Peking]

The Russo-Mongolian Agreement of November 3, 1912, with its protocol; the Russo-Chinese Declaration of November 5, 1913, with the notes exchanged on that date; the Russo-Mongolian Railway Agreement of September 30, 1914, and the Tripartite Agreement between China, Russia and Mongolia signed on June 7, 1915, together with the declaration of China and Russia, accompanying this last-mentioned document, are all printed in the Supplement to this number of the *Journal* and are deserving of more than a passing notice, for they undertake to define the relations of three great nations and recall historic events of considerable importance.

The Mongols are the same people that once swept in triumph over Asia and southeastern Europe. Their tribal rulers to-day, in three Khanates at least, claim to be lineal descendants of the great Genghis Khan. Urga, the capital of Outer Mongolia and the holy city of the Mongols, is built beside the sacred mountain where, tradition says, Genghis the conqueror was born.

The Hutukhtu of Urga, elected Emperor of Outer Mongolia, when its independence was declared in 1911, was previous to that time but the religious head of the nation. He is third in rank in the Lamaist hierarchy, his superiors being the Dalai Lama, the Civil Ruler of Tibet at Lhassa, and the Panshen Erdeni Lama, the Ecclesiastical Ruler of Tibet at Tashihlumpo. There are 160 hutukhtus in Tibet, Mongolia and China, each believed to be the reincarnation of his predecessor and, therefore, popularly but incorrectly styled "Living Buddhas." The Hutukhtu of Urga holds jurisdiction over some 25,000 lamas and is reputed to have 150,000 slaves caring for his estates and tending his vast herds and flocks of horses, cattle and sheep.

Mongolia, as a geographical term, denotes all that great stretch of territory lying between the organized provinces of China on the south and Siberia on the north. It covers an area of nearly 1,400,000 square miles, but has a population of no more than 2,000,000. Outer Mongolia, with which the documents mentioned above are concerned, has a population of about 500,000 Mongols, 2,000,000 Chinese and some 5,000 Russians. The central portion of Mongolia is a lofty plateau about 4,000 feet above sea level and largely desert. Southern or Inner Mongolia has a fertile soil and Outer Mongolia to the north of the plateau shows great stretches of green pasture lands.

The Mongols are mostly nomads. There are very few towns in the country and the agricultural districts are settled for the most part by Chinese colonists, who are encroaching upon the pastures of the Mongols, to the great annoyance of the latter, at an average rate estimated as a mile a year along a frontier of 1,500 miles.

Mongolia is divided into two great divisions, Inner Mongolia, the region lying nearest to China and comprising territories inhabited by the tribes which first acknowledged the over-lordship of the Manchus, and Outer Mongolia, embracing the remainder of the country. The Inner Mongols still retain the organization into six leagues adopted by the successors of Genghis Khan when all Asia lay beneath their sway.

Outer Mongolia, whose Government is directly concerned in the tripartite agreement mentioned above, has been tributary to China since 1691 A. D., and has testified its allegiance in the past by the presentation annually to the Manchu Court of eight white horses and one white camel. The Chinese have allowed the Mongols autonomous local government but have kept oversight of affairs by a resident placed at Urga and military governors at Kobdo and Uliassutai.

The introduction of Buddhism in its lamaist form has reduced the once warlike race to a nation of monks. It is estimated that five-eighths of the male population are lamas and celibate.

The principal divisions of Outer Mongolia are the three Khanates of Tushetu, Tsetsen and Dzassaktu, the territories Sain-noin, Urianghai and Kobdo, and the regions inhabited by the Eleuths and Alashan Mongols in the southwest and by the Barga in the northeast. There appears, however, to be some doubt as to the inclusion in "Autonomous Outer Mongolia" of the Eleuths and Alashan Mongols. The northwestern boundary has been a subject of dispute between Russia and China for some years past. This is to be more exactly determined, as provided by the agreement of November 5, 1913, and the notes exchanged that day by the two governments. Inasmuch as Article XI of the tripartite agreement, which mentions the districts included in "Autonomous Outer Mongolia," omits all reference to Urianghai, it seems not improbable that district may become incorporated in Asiatic Russia.

The eleventh article of the tripartite agreement moreover specifically excludes from "Autonomous Outer Mongolia" the region lying east of the Great Hingan Mountains known as Kulunpei-erh (Houlon Bouire). This is a portion of the territory belonging to the Barga Mongols mentioned above. By an agreement between China and Russia signed November 6, 1915, this region was placed under the direct control of the Peking Government, which appoints a Military Lieutenant Governor to administer its affairs.

The troubles which led to the negotiation of the several agreements mentioned in the first paragraph of this paper are directly traceable to two sources; first, the desire of Russia to renew the treaty of 1881 with China under which Russians in Mongolia enjoyed valuable privileges, while China on her part desired to terminate the treaty and curtail these privileges; secondly, the attempts of the Chinese Government to interfere with the autonomy of the Mongol chiefs and to introduce reforms which would lead to social and industrial progress and the strengthening of the frontier.

The treaty of 1881 between China and Russia provided for the restitution to China of the district of Kuldja in Turkestan which Russia had occupied ten years before during the Mohammedan rebellion in those regions which had furnished Yakub Beg the opportunity to establish for a brief period an independent state. Russia had occupied Kuldja to preserve peace upon her borders and had announced that the territory would be returned to China as soon as the Chinese recovered control of the rebellious dependency of Ili. General Tso, after one of the most remarkable military exploits in the history of central Asia, reconquered the disaffected region in 1878 and in 1881 China agreed in the treaty above mentioned to pay Russia nine million roubles for the restitution of the greater part of Kuldja. The treaty, however, gave Russia in addition the right to place consuls in certain cities of Turkestan and Mongolia and later, after agreement with China, if conditions of commerce should make it desirable, to station consuls in certain other towns. The Russians were also granted the right to trade in Mongolia, and in Turkestan, as far as the Great Wall, free of all duties, but this right was to be abrogated as soon as commercial conditions should make it necessary to establish a customs tariff. Furthermore, the Russian merchants were permitted to buy ground and build for themselves houses and shops and warehouses in cities where Russian consulates should be established. In addition to these privileges, a zone was established along the frontier between China and Russia, fifty versts wide on each side of the boundary, that is to say, a zone 100 versts or 66⅔ miles in width, within which all imports and exports to or from either country were to be entirely free of duty. Moreover, the imports beyond the zone into China by certain land routes were to be charged only two-thirds of the customs duties provided in the regular tariffs for sea-borne commerce, and the exports to Russia from China by these routes were to pay only the regular export duty. If the half-duty for coast trade levied on goods from other parts of China had been paid when such goods were shipped to Tientsin, the starting point for the Russian over-land trade, such half-duty was to be refunded.

These privileges, as will be recognized by all, were of considerable value to Russia. The treaty was made subject to revision or renewal at the end of ten-year periods, six months' notice being required if renewal were not to be granted. The treaty had been renewed in 1891 and 1901, and was due for renewal or revision on August 20, 1911. China was reported to be considering the advisability of giving the six months' notice required to prevent renewal of the treaty.

Russia in 1910 repeatedly called the attention of the Chinese Foreign Office to alleged infractions of the treaty by Chinese subordinate officers in the frontier districts, and the Chinese Government in its replies showed that the terms of the treaty were not interpreted in the same way by the two governments. China held that the right to appoint additional consuls to reside in Mongolia was to be exercised only when the conditions of commerce were such as to necessitate the establishment of customs by China for the collection of duty. In other words, the taxation of trade by Chinese officials, of which Russia complained as being an infraction of the treaty, was justifiable on the same grounds as the appointment by Russia of additional consuls.

The Chinese, moreover, held that the right to trade in Mongolia and Turkestan meant no more than the right to sell foreign imports in these regions and to buy native goods for export, that it was not intended that Russians should sell Chinese goods in Chinese territories. This was in reply to a complaint of Russia that China had established a tea monopoly and had forbidden Russian merchants who had bought tea in China to sell such tea *en route* to the frontier. Russia rejoined that the establishment of any monopoly was a violation of other treaties with various foreign Powers and insisted upon a literal interpretation of Article XI of the treaty of 1881 which provides that Russians may "make purchases and sales."

No satisfactory adjustment of these difficulties having been made, the Russian Government on February 3rd presented to China a series of demands covering the points in which after some delay, China was fain to acquiesce. August came and went, however, without any definite declaration that the treaty of 1881 had been renewed.

In the meantime affairs in Outer Mongolia began to wear a troubled appearance. In

July, 1911, a number of Mongol princes and lamas held a meeting in Urga to consider the situation. Chinese colonists were crowding into Mongolia. It was complained that not only was their settlement in Mongolia in violation of the original agreement made with the Manchu Government when acknowledgment of suzerainty was made, but that it was depriving the Mongols of needed pasture lands. Moreover, the Chinese are shrewd traders and it was said that they were loaning money to Mongols at exorbitant rates of interest upon the security of their lands, that the Mongols were unable to repay, and that the Chinese thus obtained possession of much Mongol property. Complaint was made, too, of the attempts of San To, the Chinese Amban at Urga, to introduce administrative changes, interfering with Mongol autonomy, and of the military measures being taken by China.

The conference decided to send a deputation to Petrograd to ask for Russian protection or assistance. Russia agreed, it is said, to use her good offices with China. At any rate, in August the Russian Minister at Peking represented to the Chinese Foreign Office that the measures being taken by China were likely to affect the peace of the border. China replied, appreciating Russia's neighborliness and saying that the reforms being introduced were for the benefit of the Mongols, but that instructions had been sent to the Resident at Urga to proceed with caution and to consult the feelings of the people. In the following month the revolution broke out in the province of Szechwan and matters in Mongolia were put aside by the Peking Government.

To the Mongols, however, the revolution came as a golden opportunity. In the Tenth Moon (November-December) of that year a second conference of Mongol princes was held, and Outer Mongolia formally declared its independence of China. The Hutukhtu of Urga was chosen Emperor and crowned with great ceremony on December 28th.

On the 12th of February following, the Manchu Emperor abdicated and Yuan Shih-kai was commissioned to establish a republic. A month later he was inaugurated Provisional President of the Republic of China. Conversations between Russia and China were resumed, and on April 26th the Russian Minister for Foreign Affairs explained to the Duma Russia's desire and purpose in these negotiations, which was declared to be not the annexation of any portion of Mongolia, but simply in the interest of peace and good order to mediate between China and Mongolia and thus protect the autonomy of Mongolia and the commercial interests of Russia.

Discussion between Russia and China of a revision of the treaty of 1881 still went on without definite result. China was disposed to abolish the free trade zone along the frontier. Finally on September 17, 1912, Russia announced that China having failed to give the notice required for a termination of the treaty, Russia was compelled to regard it as still in force, but that in order to meet China's wishes as expressed in August, 1911, the zone of free trade on the Russian side of the frontier would be abolished from January 1, 1913. China, however, did not respond at once. It was not until May 6, 1914, that a notice was issued by the Maritime Customs authorities that the free trade zone on the Chinese side of the frontier would be abolished from June 1st of that year.

Mongolia's declaration of independence had found no recognition abroad, but in Tibet, like Mongolia, a dependency of China and struggling to free itself from that bond, the coveted recognition was found. Dordjieff, a Buriat and a lama, but a subject of Russia, visited Urga in July, 1912, as the accredited representative of the Dalai Lama at Lhassa and represented to the Hutukhtu that as Tibet and Mongolia were both Buddhist countries it would be advisable to enter into a convention for mutual support against the aggressions of China. This was done, and on December 24, 1912, a treaty between the two Powers was signed in which each recognized the other as an independent state and agreed to take measures for the protection of the Buddhist faith and for mutual defence against all dangers internal or external.

In the meantime the situation at Urga began to occupy more and more the attention of Russia and China. On November 3, 1912, the agreement between Russia and Mongolia was signed in which Russia pledges her assistance to maintain Mongolia's autonomy and her right to have her own army and to admit neither the presence of Chinese troops on her soil nor the colonization of her lands by Chinese. In return for this Mongolia grants to Russian subjects the possession of certain rights and privileges, enumerated in the protocol attached to the treaty, among which are the right of free trade, of leasing and owning real property, of engaging in mining, fishing and lumbering, establishing postal facilities, and navigating streams that flow into Russian territory. It is further provided that should any treaty be made subsequently with China, these rights shall not be infringed

President Yuan during 1912 made strenuous efforts to induce the Hutukhtu to rescind his declaration of independence. Many telegrams were sent to Urga, but brought no response until November 21, 1912, that is, some days after the above-mentioned agreement had been signed. On November 21st the Premier of Mongolia sent a telegram to President Yuan, saying that because of the ill-treatment which Mongolia had received at the hands of the Manchu rulers of China, they had declared their independence and, on December 28, 1911, had crowned the Hutukhtu as their ruler; that subsequently they had learned of the abdication of the Manchus and the establishment of self-government of the Chinese people and were greatly rejoiced. They felt, however, that as the customs of Chinese and Mongols were so diverse and the Mongols were so ignorant, it was better they should not try to live together in the same house.

A few days later, November 25th, a similar telegram from the Hutukhtu himself was received by the President. President Yuan had reminded the Mongolian ruler that his country was weak and that the course she was taking would be likely to end for her in a fate similar to that of Korea and Formosa. He replied that he realized the weakness of Mongolia, but that China was a long way off and her whip, however long, could scarcely reach to Outer Mongolia to drive off Mongolia's enemies. He begs the President not to take a severe course lest he drive the Mongols to desperate measures.

The President replied in a conciliatory telegram, calling attention to the fact that many of the Chinese provinces had in 1911 declared their independence, but that all had reunited and were working together, and that it was the aim of the Republic to unite the five races, destroy all racial prejudice and seek to promote the welfare of each and all. He informed the Hutukhtu that he was sending a special envoy to Urga to discuss matters with him.

The Hutukhtu replied promptly on November 26th that it would be better not to send an envoy, but to use the mediation of their common neighbor—Russia. Having failed in his efforts to deal directly with the Government of Outer Mongolia, President Yuan on March 8, 1913, turned once more to Russia.

The writer was in Peking in 1911, 1912, and 1913, and had opportunity therefore to note the keen interest in this question taken by the Chinese people. Their feeling against Mongolia and Russia grew very bitter during 1913. The Chinese newspapers were particularly active in trying to arouse a warlike sentiment. The situation indeed in Inner Mongolia near the Chinese border became quite serious. Additional troops were sent there by the Chinese Government and a number of encounters with bands of armed Mongols occurred but without any noticeable advantage to either side.

This feeling of hostility towards Russia was no doubt due in great measure to a misunderstanding of terms. The word "autonomy" was taken to mean "independence." When, therefore, on November 5, 1913, a little more than a year after the signing of the Russo-Mongolian Convention, an agreement between China and Russia was signed, in the first article of which Russia acknowledges the suzerainty of China over Outer Mongolia, this feeling was very much allayed. Russia had never denied China's suzerainty over Mongolia, but this express acknowledgment of it at once silenced the false report that Russia had asked China to recognize the independence of Outer Mongolia.

China on her part acknowledged the autonomy of Outer Mongolia. This, too, was no more than a recognition of the *status quo ante*, but it served to reassure the Mongols, since it guaranteed that there would be no interference by China with the internal administration of the country and pledged China not to send troops into Outer Mongolia and not to colonize there. The Mongols, however, were somewhat disappointed by this agreement, since they, too, had been under the impression that their "autonomy" meant "independence."

Russia could not but be gratified, since the convention expressly agrees to the principles set forth in the Russo-Mongolian Agreement of 1912 and assents to all the stipulations regarding Russian commercial privileges contained in the protocol to that agreement.

The notes accompanying this agreement bind both Russia and China to hold a conference, in which Outer Mongolia shall participate, for the settlement of questions of a political and territorial nature.

Before that conference was held, Russia entered into another agreement with Mongolia, dated September 30, 1914, which practically gave to the former control of the railway policy of the latter. This was a matter of considerable importance to Russia, since it still further safeguarded her frontier. By this agreement Russia obtained the right to advise Outer Mongolia in deciding what railway lines to build and the method of procedure, which was required to be beneficial to both parties. Since the gauge of the Russian railways is different from that adopted in China, this practically assures the building of lines that can connect with Russian rather than Chinese railways. Russia recognizes Mongolia's right to build the railways within its own boundaries if the funds can be raised there, but Mongolia is pledged to consult Russia before making concessions for railway construction to other nationals.

Russia having thus come into agreement separately with China and with Mongolia, representatives of the three Powers met in conference and entered into the tripartite agreement of June 7, 1915, which is the keystone to the whole arrangement. In it Outer Mongolia is made to recognize the Sino-Russian Convention of 1913, which establishes China's suzerainty over Outer Mongolia, and expressly agrees not to negotiate treaties with foreign Powers respecting political and territorial matters, although treaties respecting commercial and industrial matters are permissible. Both China and Russia agree to abstain from all interference with the internal administration of Outer Mongolia. Chinese imports into Outer Mongolia are to be free of all duties, and goods of foreign origin are to be imported into China from Outer Mongolia on payment of the reduced tariff provided in the treaty of 1881. Thus Russia's right to free trade in Outer Mongolia is confirmed, the customs stations being removed from the Siberian frontier to that between China and Outer Mongolia.

Chinese jurisdiction over Chinese residents of Outer Mongolia is retained, but Chinese-Mongol mixed cases are to be adjudicated by Chinese and Mongol authorities acting conjointly. In Russo-Chinese mixed cases the Russian authorities take part in deciding and in drafting the judgment, even in actions heard in the Chinese court and in which a Chinese is defendant. The Chinese authorities also have the right to be present in Russian courts when Chinese are plaintiffs and Russians are defendents, but do not appear to be allowed to participate in the judgment.

The Ruler of "Autonomous Outer Mongolia" is confirmed in his title by Article IV, which provides that the President of China shall confer such title upon the Hutukhtu.

All the provisions of the several agreements between Russia and Mongolia and between Russia and China are ratified by Article XXI of the tripartite convention, and thus become incorporated in the tripartite convention.

One of the most significant articles is the third, the second paragraph of which binds China, in accordance with Article II of the notes exchanged between China and Russia on November 5, 1913, to consult Russia and Outer Mongolia in regard to all questions of a political or territorial nature. Thus, while China nominally is acknowledged as suzerain, practically Outer Mongolia is under the joint protection of Russia and China.

These agreements, then, have considerably increased the political and commercial rights of Russia in Mongolia, and they thus tend to restore, if not to enhance, Russian prestige in the Far East which had been somewhat lessened by the result of the Russo-Japanese war.—*American Journal of International Law.*

REPRIMANDING THE DIRECTORS OF MINING AFFAIRS.

Mining in China has been so little encouraged by the Government, and officials in general have so obstructed development, that it is refreshing to see even an order from the Ministry of Commerce, Agriculture and Industry (which is responsible for mining affairs), which indicates that there is at least a fraction of interest in the industry. An order was issued this month to the Financial Commissioners (acting concurrently as Directors of Mining Affairs) in the provinces warning them against delay in forwarding petitions for mines. The order itself illustrates the casualness of some officials, and will explain some of the difficulties which Chinese merchants have when they desire to do something in the way of mining development. The order is as follows:

Notice is hereby given to the Directors of the Mining Affairs of the provinces. It has come under the notice of this Ministry that since the mining affairs in the provinces were placed under the charge of the financial Commissioners of the provinces, the latter under the excuse of pressure of business have oftentimes delayed or neglected the petitions submitted by merchants and private persons for mining rights and other affairs in this connexion. The most flagrant instance of delay and neglect is found in the office of the Financial Commissioner of Hupeh, where petitions submitted by merchants fail to reach this Ministry after a period of six months. Upon the protest of the merchants, an investigation was conducted into the case and it was then found that the petitions were lost while in transit. Punishment was accordingly meted out by the Government to the different officials responsible for this neglect and the petitioners were ordered to submit a duplicate copy of their petitions in lieu of the original ones. In spite of this step of the Government to punish the guilty and remove the grievances of the merchants, the petitioners concerned have already suffered great disadvantage.

According to the provisions of the regulations promulgated by the former Board of Labour and Commerce, it is provided that petitions submitted to the provincial officials regarding mining cases should be forwarded to the Central Government within a period of twenty days. But this Ministry, while approving the wisdom of the order, considers it not advisable to limit the period to a fixed number of days for all cases, as the mining districts are not of equal distance from the Capital, and the cases for which the merchants petition differ from one another in complexity of their nature. The Ministry hereby issues a list for the mining cases and the officials in this Ministry and the financial commissioners in the provinces shall hereby be ordered to take note of the same. In this list space is provided for insertion of remarks on the different stages through which a case has passed or a petition has received the attention of different officials. Every petition submitted to the Minister should be accompanied by such a list, setting forth the date of the receipt of the petition and the date of its despatch by every official. The Minister will thereby be able to know the care or neglect with which the officials have dealt with these affairs. In case the officials have to delay the petition for a certain number of days before they are able to submit it to the Minister, they should put remarks in the list, setting forth the reason and the circumstances under which the despatch of the petition is delayed. In this way, the Ministry will be able to give a satisfactory reply to the petitioners to show that the petition had already received the due attention of the authorities. Having issued separate orders to the different officials in charge of mining affairs, this Ministry hereby calls the attention of the officials to the above fact and hopes each of them will respect and obey the same accordingly.

A REVOLUTION IN METAL BEDS

This process of electrically welded construction has eliminated all of the unsightly cast iron chills which in the past have been used to join the rods together. With the removal of those chills the beautiful lines of the bed have been established, and the work of the artistic designers is in no way impaired—resulting in designs which but a few years ago were considered impossible.

This new construction has resulted in more than one-third reduction in weight, and the bed is now made in a much stronger construction. It weighs only seventy-five pounds net, whereas the old heavy gas pipe construction of the same bed weighed one hundred and fifteen pounds net. This reduction in weight, with the addition of the easy rolling leg-mount casters, which can be used on such a weight bed, makes it possible to move the bed with the greatest ease, and without the slightest marring of floor or tearing of rugs or matting. To the ever increasing number of overseas Simmons' dealers this saving in weight has proven a great advantage, especially where the freight or duty is based on the weight.

Hand in hand with the saving in weight has been made possible the reduction in price, as will be readily appreciated when the advance of 100%, or more, in the price of steel, since the outbreak of the war, is considered. This saving in cost of production, which is linked with an improved quality, has enabled the Simmons Company to advance their product in all markets where a large number of competing manufacturers of the old style heavy iron bed have been forced to withdraw.

Beds made with the same material and of loose pillar construction have especially enjoyed a most extensive demand for overseas shipment, and with the saving in weight, in addition to the many other advantages which are found in this new bed, it has proven itself to be a most acceptable article for foreign trade.

The Simmons Company has tripled its daily output during the past two years in an effort to fill the demand of both home and foreign trade.

DU PONT PEACE ACTIVITIES

When the Du Pont Company of Wilmington, Del. is mentioned many people think of explosives and war. Such is a wrong impression. True, they are the largest powder makers in the world, but the word explosives should not always be considered a destructive agency. Everybody knows explosives are used for war purposes, but they forget that they are also of great industrial benefit, being used for Construction, Mining, Agricultural and Sporting purposes.

The company is not only interested in explosives, it has put on the market numerous solvents and solutions necessary for the practical and economic manufacture of drugs, chemicals, fertilizers, adhesives, preservatives and many other such products. It is the largest manufacturer of leather substitutes in the world. Such leather is now being extensively used for automobile, furniture and railway car upholstery as well as book binding. During 1916 a large addition to the Newburgh, N. Y., plant was started. The scarcity of leather is working the plant night and day, and then it is not keeping up with the orders.

All branches of the Du Pont Co. have had a great year. Its products have assisted in many great industrial undertakings and increased the farmer's wealth by helping him get more money out of mother earth.

Many other instances of growth in constructive measures could be mentioned, but enough is to say that a company which started with practically naught in 1802 has by honesty, fidelity and ambition reached the top.

HUNAN-YALE HOSPITAL

On the 18th Oct. the corner stone of the new Hunan-Yale Hospital was laid. The building, erected in brick with reinforced concrete floors, is to be steam-heated, electric-lighted, and supplied with hot and cold water throughout and will be equal to the best in Europe and America as to appointments. All waste will be disposed of through a modern sewage plant. The building will accommodate 120 beds, half of them being devoted to women and half to men, with accommodation for several foreign patients on the third floor. The cost of the hospital, the gift of a Yale University graduate and which will be used as a teaching hospital, operated in connexion with the Hunan-Yale College of Medicine, will amount to Gold $170,000.

ICE FACTORY AT CHANGSHA

The building of an ice-factory with refrigerating plant and cold storage accommodation, owned by Chinese, is in course of progress on the Shuilu Island, opposite the city, and will probably be completed during the summer. The plant, when finished, will, it is expected, be able to turn out about 3,600 pounds of ice daily.

River of about 1,200 feet, another at the Laotao River of 450 feet, and at the Liuyang River of 600 feet. Track-laying is in course of progress and has advanced some 10 miles northwards from Changsha, and track will be laid between all the large bridges, which are few and far apart, so that on arrival of the steelwork only a short time will be required to put the line through.

ENGINEERING, FINANCIAL AND INDUSTRIAL NEWS

RAILWAYS

Siamese Northern Railway.—The report of the operation of the Siamese Northern Railway for the fiscal year ended March 31, 1916, has been published. At the close of the year the total length of the line open for traffic was 871.7 kilometers (541.6 miles), of which 35.7 kilometers had been opened during the year. The gross receipts amounted to $1,811,294, against $1,662,593 in the preceding year, and the net profit, after making deductions for the renovation fund, amounted to 5.28 per cent on the capital outlay of $21,599,721 on all the open lines at the close of the year, as compared with 4.74 per cent in the preceding year. The number of ordinary passengers carried was 2,609,730, an increase of 179,234, as compared with the preceding year. The quantity of goods carried was 380,757 tons, an increase of 12,602 tons over last year. The live stock transported amounted to 105,533 head, an increase of 28,469. Among the commodities carried showing an increase over the preceding year were: Betel nuts, 679 tons; cement and cement ware, 688 tons; coconuts, 645 tons; kapi (a Siamese condiment made from prawns), 424 tons; salt, 2,248 tons; rice, 2,512 tons. A new item consisted of 23,110 tons of marl for the recently established cement factory. The extension of the northern line is proceeding, and in about one year it is expected that trains will be running as far as Chiengmai, the northern capital of the Kingdom.

American Locomotives in China.—Twenty railway locomotives of American make for use on Chinese railways have been received at Wuchang. Ten of these are to be used on the railway from Wuchang to Changsha, which is expected to be opened in March, 1917, and which is being built from funds provided by the Hukuang loan. The other 10 locomotives are for the Peking-Hankow Railway line.

Light Railway from Swatow to Changlin.—A company under the title of the Swatow-Changlin Light Railway Service has been inaugurated at Swatow and the sanction to construct and operate the line has been granted by the local authorities. The aim of the company is to build and operate a line of light railway from Swatow to an interior point called Changlin, a distance of about 20 miles, via Chenghai, a city situated midway between the two termini. It is reported that the capital will be $500,000 local currency (about $250,000 United States currency). Construction of the roadbed has been begun. The cars to be used on the line will be very small and light, so that they may be pushed along by men, a system which, it is claimed, has given satisfaction in Formosa.

Kaifeng to Shanghai, 24 Hours.—Commenting on railway development in central China the *Peking Daily News'* Kaifeng correspondent writes:—Kaifeng is now on the map. We are now within twenty-four hours of Shanghai. These notes are being mailed on the first train to run on the new schedule. A new sleeping car service on the Lung-Hai connects at Hsuchow with the Tientsin-Pukow and cuts out a nasty night stop-over. One can now leave Shanghai at 7.55 a.m. and reach Kaifeng the next morning at 7.50. Other changes are made on the Hankow-Pukow line in adjustment with the east and west line. "Every man for himself and the Devil take the hindmost" seems to have been the policy hitherto practised in making railway schedules, as it has been with other things in China. Each line has had its time-table in force without regard to connexions or comfort of passengers. Coming from Peking one had to spend the night at Chengchow before he could go on to Kaifeng. From Kaifeng to Shanghai the same thing took place at Hsuchow. Finally, the roads are getting together and the public will rise up *en masse* and call their managers blessed. Let us record the fact once more that in China "things do move." Only a short time ago it took five or six days to go from Kaifeng *via* Hankow to Shanghai. It yet takes three days to go down the river from Hankow to Shanghai; but one can go from Hankow *via* Kaifeng and Hsuchow in a day and a half. We welcome all such travellers to the new name on the map—Kaifeng—the ancient capital of China.

Railroads in Siam.—Progress in the construction of Siamese railroads foreshadows the establishment of a rapid land route between the Gulf of Bengal and the China Sea. As soon as the Siamese railroads become linked with the systems in China and Indo-China an overland short-cut will become available and the long voyage around Singapore may be avoided.

The first railroad in Siam was opened in 1897 and ran between Bangkok and Ayuthia, the old capital (Suppl. to Commerce Reports No. 58a, Nov. 6, 1916). This, the northern part of the system, has steadily been extended up the valley of the Menam River and beyond, where it now reaches Lampang, on the upper Meping, a western tributary of the Menam. The short distance to Chiengmai, the northern capital, will be completed before long. The region to be tapped here is rich in natural resources. With adequate transportation its products will find a ready market in Bangkok. The southern part of the system embraces the coastal districts of the Gulf of Siam. Of a total of 470 miles, 120 miles were in operation on April 1, 1915. Its most important section will eventually run along the whole length of the Malay Peninsula.—*The Geographical Review.*

Tokyo-Yokohama Suburban Road.—The Imperial Railway Bureau has started an investigation with the view to constructing another electric line from the surburbs of Tokyo to Yokohama, similar to the present Tokyo-Sakuragicho line. The new line would be an extension of the suburban line which now encircles the city of Tokyo. Should it be built, suburban towns between Tokyo and Yokohama are expected to receive great benefits, as well as the residents in the two cities. Plans also are being made to increase the number of electric trains and shorten the time between Tokyo and Sakuragicho, when the elevated line between the Yokohama and Sakuragicho stations is completed next April.

Shanghai Tramways.—The following is the Traffic Return of the Shanghai Tramways (Foreign Settlement) for February, 1917, and for 2 months ended 28th February, 1917, with figures for the corresponding periods last year:—

	February, 1917.	February, 1916.
Gross Receipts......	$119,893.35	$112,167.15
Loss by currency depreciation ...	27,507.70	29,895.00
Effective Receipts	M. $ 92,385.65	M. $ 82,272.15
Percentage of loss by currency depreciation	24.37	28.35
Car Miles run ...	304,001	271,357
Passengers carried	5,363,070	4,897,821

	2 Months ended 28th February, 1917.	2 Months ended 28th February 1916.
Gross Receipts ...	$256,879.89	$232,190.38
Loss by currency depreciation	57,437.49	59,551.45
Effective Receipts	M. $199,442.40	M. $172,638.93
Percentage of loss by currency depreciation	23.68	27.25
Car Miles run ...	636,234	563,495
Passengers carried	11,490,658	10,214,550

SHIPPING

Shipping Conditions in China.—The high freight rates prevailing during 1915 and the first half of 1916 have had a marked effect on China's trade. Freight rates increased from 300 per cent to 500 per cent above the rates prevailing before the war, and this, in connection with the shortage of tonnage, operated to paralyze the export trade, notwithstanding the greatly increased demand for China's products due to the war. Export freight rates from China are now rapidly approaching normal, due perhaps largely to the present high value of silver, the highest in 30 years. This high rate of silver exchange operates against exports also, its practical effect being to increase greatly the original first cost. Thus, with pre war normal exchange, for a product offered at 2.25 Mexican dollars, America would have to pay only $1 gold. At the present rate prices are 30 per cent higher on account of exchange alone. While freight rates and high value of silver both tend to reduce the volume of exports, the consequent loss of profits to the American exporter in China is partially offset by his increased commissions. The American exporter does not, as a rule, buy stocks except to fill orders. His practice is to obtain local prices, figure the c. i. f. cost, and make quotations based upon that cost plus his commission, so that the higher the freights and the higher the exchange rate, the greater will be his commissions on such business as he is able to procure. This compensating advantage of high rates is not shared in by the producer.

Panama Canal Traffic.—During November 148 vessels of 436,204 net tons (canal measurement) passed through the Panama Canal, 72 of them (net tonnage 220,806) in transit from the Atlantic to the Pacific Ocean and 76 (net tonnage 215,398) from the Pacific to the Atlantic. They carried 519,043 tons of cargo (198,718 tons from the Atlantic to the Pacific; 320,325 tons from the Pacific to the Atlantic). The tolls earned during the month totaled

$420,113. Of this amount $202,760 was from ships passing from the Atlantic to the Pacific Ocean, and $217,353 from ships passing from the Pacific to the Atlantic. With respect to nationality, 64 of the ships were of British registry, 33 United States, 11 Norwegian, 9 Chilean, 8 Dutch, 8 Peruvian, 4 Spanish, 3 Costa Rican, 2 each under the Japanese, Danish, and Swedish flags, and 1 each under the Mexican and Cuban. The aggregate length of all the vessels was 50,634 feet, or 9.5 statute miles.

Shipping Record of Chosen.—Coastwise navigation in the waters adjoining Chosen is carried on for the most part by the Chosen Yusen Kaisha (Chosen Mail Steamship Co.). *The following report of its semi-annual meeting*, taken from the Seoul Press, may be of interest as showing something of the work of this company: According to a business report made public on the occasion, the company maintained during the term regular navigation of 16 routes. In all, 33 vessels, including two chartered ships, were put on the run on these routes, their aggregate tonnage reaching 10,300. The mileage covered by these vessels, when taken together, amounted to 350,000 nautical miles, and the total quantity of goods transported, as well as the aggregate number of passengers carried, were 130,000 tons and 111,000 persons, respectively. The company is now in its fourth year. Of the routes it now maintains, the Wonsan-Vladivostock route and 11 other routes are ordered by the Government General. The company has taken care to make every improvement in its power in the business of the company, and this, coupled with the development of industry in the peninsula, has put the company in a fair way to prosperity. The market, which has been in a state of depression for a long time, has recently revived, with the result that there has been a great demand for bottoms to carry articles of commerce. The transportation of supplies to Vladivostock has also enlivened the business of the company, and the trade with Tsingtao has had a similar result. Various other causes have also conduced to the prosperity of the business of the company for last term, and in consequence reasonable profit was realized for the term under review.

FINANCE

Singapore's 1917 Budget.—The Singapore municipal budget for 1917 shows estimated revenue of $2,157,230, of which $973,777 is the anticipated receipts from taxes on houses, buildings, and lands and general water tax; $126,619 from taxes on carriages, horses, carts, and dogs; $507,159 from licenses on carriages, drivers' fees, rents, reimbursements, and miscellaneous sources; $473,829 from water rents and charges; $3,132 net revenue from the electricity department, and $72,714 net revenue from the gas department. The expenditure for the year is placed at $2,188,229, divided as follows: Personal emoluments, $322,752; annually recurrent expenditures, $502,974; disbursements recoverable, $188,594; special services $320,636; miscellaneous services, $74,353; interest, sinking funds, and repayments on loans, $162,864; and other charges, $76,178; also on water department, $500,810; capital expenditure on electricity department, $28,562; and capital expenditure on gas department, $10,506.

The estimated revenues are based upon a proposed consolidated rate or tax of 12 per cent on the value of all houses, buildings, land other than agricultural land, and tenements within the municipality; a consolidated rate of 5 per cent on all lands for agricultural purposes; and a separate and additional rate of 3 per cent on the value of all houses, buildings, lands, and tenements which have access to the municipal water supply under certain regulations. There is also proposed an improvement rate of 2 per cent and an education rate of 1 per cent on houses, buildings, lands, etc. Special taxes are also provided on traction engines, carriages, carts, wagons, motor cars, jinrickishas, bicycles, tricycles, horses, and mules varying from $1.15 for bicycles and tricycles and $2.85 for horses and mules to $6.80 for carriages, $13.60 and $28.40 for small and large motor cars, and $57 for motor trucks.

Japanese overseas Banks.—Some of the leading banks of Japan have begun overseas operations. Among these, says the Japan Mail, the Sumitomo Bank has not only opened exchange transactions as agent for the International Banking Corporation, but has established branches at San Francisco and Hawaii. In China, too, the bank will shortly open branches along the Yangtse to conduct exchange transactions in silver. The newspaper also states that the Thirty-fourth Bank of Osaka has begun exchange transactions as agent for the Hongkong and Shanghai Banking Corporation. The Yamaguchi and the Kashima banks are contemplating exchange business. The Mitsubishi Co.'s banking department has already established a branch office in London as a step to the opening of exchange between London and this country. It is a settled arrangement that the Mitsui Bank will open a banking house in Shanghai to handle exchanges in silver. This bank also contemplates the opening of branches in America and Europe, where already investigations are being carried out by its agents.

Yokohama Specie Bank's Report.—The Yokohama Specie Bank (Ltd.), in its report for the half year ended June 30, 1916, announces the gross profits of the bank as 24,761,405 yen which includes 1,336,716 yen brought forward from the last account. From this sum 21,124,009 yen has been deducted for interest, taxes, current expenses, etc., leaving a balance of 3,637,455 yen for appropriation. The addition to the reserve fund amounts to 400,000 yen thereby increasing that fund to 20,800,000 yen and a declared dividend at the rate of 12 per cent per annum will absorb 1,800,000 yen. The balance, 1,437,455 yen will be carried forward to the next account. The capital of the bank is now 48,000,000 yen, of which 30,000,000 yen is paid up.

Bank of Chosen.—A scheme to increase the capital of the Bank of Chosen from 10,000,000 yen to 20,000,000 yen was approved at a general meeting of the bank's shareholders on February 20. The report and accounts of the past half year were also adopted.

Communications Revenues Increasing.—According to the latest investigation, Japan's revenue from post, telegraph and telephone services from April, 1916 to January, 1917, were 57,733,398 yen, an increase of 9,277,216 yen over the estimates on the Budget for the same period.

Japan's Currency.—The currency in circulation in Japan on January 31 amounted to 695,558,288.90 yen, as follows:—

Gold coins	48,856,632.00 yen
Silver and copper coins...	185,295,993.40 ,,
Bank-notes	510,262,295.50 ,,

Compared with December 31, 1916, the total decreased 87,066,193 yen, but an increase of 124,732,201 yen was seen over the figures for January 31, 1916.

MINES

Tungsten Exports of Malay Peninsula.—The Malay States Information Agency in London calls attention to the following particulars regarding the exports of tungsten ores from Malaya, taken from the last report of the senior warden of mines in the Federated Malay States: It is not generally realized that tungsten ores do not occur in the Federated Malay States in defined deposits; by far the greater bulk is found in small quantities, irregularly intermixed with tin ore and valueless matter, and consequently any large increase in output is impossible. Every effort has been made by the authorities, however, to stimulate production, the export duty having been suspended and special terms granted to prospectors. The total quantity of tungsten ores exported from the Federated Malay States in 1915 amounted to 291 tons, as compared with 201 tons in 1914 and 225 tons in 1913, most of this being ore containing less than 65 per cent of tungstic acid. In addition to these exports, tungsten ores aggregating 407 tons were imported from other countries in 1915 and re-exported after treatment at local separating works. The value of the wolfram exported from the Federated Malay States in 1915 was £32,174 ($156,575).

The quantities of tungsten imported into the Straits Settlements from the undermentioned territories during 1913-1915 were:

Imported from—	1913 Tons.	1914 Tons.	1915 Tons.
Burma....................	115	28	22
British Malay States..	268	230	220
Siam......................	270	179	266
Dutch East Indies..........................			18
Total....................	653	437	526

The value of the total exports of wolfram from the Straits Settlements in 1915 was £69,900 ($340,175), as against £54,130 ($263,425) in 1914, and £74,638 ($363,225) in 1913.

Tungsten Mines of Hunan.—Reports of fights and feuds over mining rights are coming to be quite common in these days, says the correspondent of the *North-China Daily News* at Chenchow. The large tungsten mine that made a first large shipment of that ore to London some time ago, seems to be unable to send any more and is piling up quantities of the ore awaiting a settlement of the feuds over mining rights. The local miners, after they had found out the value of the tungsten ore, seem to think that the new company has no right to mine and are compelling the company to await a settlement.

Mr. Chow, the American-trained engineer, told us how he discovered the ore. He was travelling over the mountains, where local miners were mining and smelting sulphur. He picked up some of the refuse and took it to his office to examine it and found it to be tungsten. He immediately opened a mine and hired coolies to gather up this hard, black refuse and made a first shipment. After the local miners found out the great value of the ore they began opposing the company for which Mr. Chow was working and have tried in every way to drive out Mr. Chow's men.

This same company has a fine tin mine not far from the city and last year shipped 800 tons of the smelted ore. The mining and smelting is done in the old crude way without machinery.

Japan's Output of Cement.—Hitherto the total output of cement in Japan has been unknown, as the manufacturers kept their actual capabilities secret from business motives. Recently a proposal was made that cement manufacturers should take steps to regulate the relation between supply and demand, and a special meeting of manufacturers from all over the country was held in Osaka. As a first step to consider the proposal the meeting investigated the total output of cement in Japan during the past seven years, with other particulars. The result is shown in the following table:

Years.	Output.	Domestic sale.	Export.
	Barrels.	*Barrels.*	*Barrels.*
1909.	2,540,000	1,986,000	149,000
1910.	2,639,000	2,520,000	231,000
1911.	3,192,000	3,302,000	67,000
1912.	3,803,000	3,256,000	48,000
1913.	3,741,000	3,528,000	148,000
1914.	3,625,000	3,611,000	249,000
1915.	3,943,000	3,273,000	668,000

In 1915 the output and the demand for cement were almost equal. From this year onward there will be a growing increase in output, while the future prospects of the export trade in this line are not very encouraging. It is estimated that, as compared with 1915, the output this year will show an increase of 522,000 barrels and next year of 3,235,000 barrels, while the increase for 1918 will amount to no less than 7,691,000 barrels.

Japan's New Iron Manufactory.—Business men connected with the Osaka Shosen Kaisha and the Osaka Iron Works, according to the Japan Chronicle, are behind a project to establish a company for the manufacture of iron chains, anchors, rivets, and various iron articles used in shipbuilding, with a capital of 2,000,000 yen. The Chronicle quotes the Jiji as saying that the entire capital has already been subscribed by the promoters. The method of launching the projected company will be to convert by purchase the interests of the Osaka Seisasho and a formal establishment will be announced. The new company will be called the Kabushiki Kaisha Osaka Seisasho.

Chosen Mineral Output.—The following table is given to show the value of the exports of each of the principal minerals for the last seven years:

Year.	Gold.	Iron.	Coal.	Graphite.	Total.
1909.	$3,083,621	$141,069	$111,343	$75,062	$3,411,095
1910.	4,661,493	169,421	180,666	56,932	5,068,512
1911.	4,653,341	138,928	187,649	65,751	5,045,869
1912.	4,693,993	155,276	166,689	82,392	5,098,450
1913.	5,161,427	173,773	178,362	124,056	5,637,618
1914.	5,191,639	208,594	228,405	95,805	5,634,443
1915.	6,129,658	250,222	313,644	101,042	6,794,566

The most marked development in the mining situation in 1915 was the opening up of tungsten ore. Owing to the great advance in the price of tungsten by reason of the war, especial attention was paid during the year to the discovery of new and workable veins of wolframite and scheelite. Exact figures for the production of these tungsten-bearing ores are not yet obtainable, but the exports in 1915 were valued at $45,103.

Japan's Mineral Output in December.—According to investigations by the Agriculture and Commerce Department, the output of important minerals in the Empire during December last was as follows:—

Gold	178,467	momme
Silver	40,911,741	,,
Copper	12,922,638	kin
Iron	5,347	ton
Coal	1,942,906	,,
Petroleum	230,952	koku
Sulphur	8,262	ton

(1 momme equals .1325 oz.; 1 kin equals 1.322 lb. avoir. and 1 koku equals 39.7 gallons.)

As compared with the corresponding period in 1915, the month under review showed a decrease of 12.4 per cent in gold, an increase of 14.4 per cent in silver, an increase of 13.9 in copper, an increase of 34.9 per cent in iron, an increase of 10.1 per cent in coal, a decrease of 2.4 per cent in petroleum and an increase of 52.4 per cent in sulphur.

France Buys Japanese Copper.—The French Government has concluded a contract with the Kuhara Mining Company, Osaka, for the purchase of copper to the value of 4,000,000 yen, according to an Osaka dispatch to the Jiji.

F.M.S. Tin Exports.—An official cablegram from Kuala Lumpur gives the export of tin from the Federated Malay States in the month of December last as 3,945 tons against 3,635 tons in November, and 4,071 tons in the corresponding month of 1915. The total export for the past year amounted to 43,871 tons, compared with 46,767 tons in 1915, and 49,042 tons in 1914.

Tokyo Gas Company's Colliery sold.—The Tokyo Gas Company owned a colliery at Yubari-gun, Hokkaido, the working of which was in the hands of the Ishikari Coal Company. Recently this company was taken over by the Mitsui Bussan Kaisha, which has since been trying to buy the interests of the Gas Company's colliery also. According to the Jiji, the Tokyo Gas Company has now decided to sell its colliery, covering an area of 1,200,000 tsubo, for Yen 2,750,000, of which Yen1,000,000 is to be paid on transfer and the remainder in three annual instalments. To the transfer is appended a condition that up to 1941 the Mitsui Company shall supply coal to the Tokyo Gas Company in Tokyo at 7.30 Yen.

Increased Output of Zinc.—The war has greatly increased the demand for metals, especially zinc. As a result, the output of zinc in Japan shows an enormous increase. According to the latest investigations made by the Department of Agriculture and Commerce, the total output of zinc in 1916 amounted to 35,218,951 kin, valued at Yen 12,952,591, as compared with 9,855,199 kin and Yen 1,369,017 respectively for the preceding year, an increase of 257.4 per cent in quantity and of 841.1 per cent in value.

INDUSTRIAL

Japanese Factory Workers.—The Sale and Frazar Geppo states that women workers in factories largely outnumber the male workers in Japan. A recent Government announcement, it says, shows that there are 486,481 female workers, as against 81,106 male workers in the 13,249 dyeing and weaving factories of the country. The machinery factories employ 4,448 women and 94,171 men; chemical, 29,796 female workers and 63,627 male; food and drinks, 13,984 females and 64,621 males, and other factories 30,599 females and 80,432 males. The total number of factory workers in Japan includes 564,308 female and 383,957 male employees.

Hide Exports from Yunnan.—According to a report prepared by the commercial agent of the Haifong-Yunnanfu Railway, the construction of this road has given a great impetus to the trade in hides, and the export of raw ox and buffalo from Yunnan Province (China) to Tonkin and abroad has considerably increased within the past 10 years. Yunnan has long been marked out as capable of supplying large quantities of oxhides, but until recently the isolation of the country and the difficulty of communication with the outside world has hindered this trade.

All parts of Yunnan Province can supply hides for export, but five districts in the zone of the railway and the Tonkin route, as well as the Yunnanfu market, are especially noteworthy. These districts and the potential amounts they can supply are: Mungtse districts, from 90 to 100 tons; Chuching district, 90 tons; Tung Chuan district (at present of little importance for this trade), from 15 to 20 tons; Hsia-kuan district (the most important trade district of the Province), from 120 to 180 tons; Chien-chang (Szechwan) district, from 30 to 40 tons. The Hsia-kuan district in addition sends to Burma via Tengyueh about 200 tons of hides each year. The Yunnanfu market can supply from 40 to 50 tons of ox and buffalo hides yearly. Ox hides range between 7 and 20 catties (9.3 to 26.6 pounds) and buffalo hides between 20 and 50 catties (26.6 and 66.6 pounds). On the Yunnanfu and Mungtse markets the skins can be bought "green," in which case a diminution of about 60 per cent in weight must be allowed.

Spinning Mill for Tsingtau.—A Spinning mill of 30,000 spindles will be erected within a year at Syfang, a suburb of Tsingtau, by the Naigai Men Kabushiki Kaisha (Japan & Foreign Cotton Co.), a Japanese concern with headquarters at Osaka and a mill at Shanghai. All of the machinery, both power and spinning, has been purchased in England and will arrive within six months. In 1915, 5,445,153 pounds of raw cotton were exported from Tsingtau, valued at $393,915, and in the same year 11,463,137 pounds of cotton yarn were imported, valued at $1,313,201. Cotton thread import was valued at only $6,765.

Manchurian Bean, Cake, and Oil Trade.—An abundant bean crop has been harvested in the interior and is now being brought to the shipping centers along the South Manchuria Railway, while the high price of silver has made the Chinese farmers eager to sell, with the result that stocks of beans are rapidly accumulating at the wharves of Dairen. Scarcity of money in the interior is said to be another factor in the present condition of the trade. The markets for cake in Japan are firm, on account of the good prices obtained there for rice, while Formosa has been a good buyer of cake to be used on sugar plantations, and South China is always a good market.

The price of bean oil has been quite steadily maintained. Chinese sources have furnished a large number of orders, and reports from the American cotton crop also have been contributory. Direct shipments of oil to America began in the spring of 1916 and seemed to promise further shipments and a good demand from that market. The gradual development of the fatty acid and glycerine business here has also kept up the demand, while orders have been received from Holland and other European countries. Local papers state that the Mitsui Bussan Kaisha has established a branch office at Seattle and is about to consign a record shipment of oil to that port, accompanying it with a sample shipment of cake.

Japanese Silk Crop.—The 1916 autumn crop of silk cocoons in Japan was an exceptionally good one. The Silk Association of Japan reported a total of 9,472,600 bushels of cocoons as the yield of the past autumn, compared with an output of 7,549,100 bushels in 1915, an increase of 25.5 per cent. The increase is due not only to new methods of rearing, but also to market conditions, and the favorable weather during the growth of the caterpillars. The products are generally of good quality, with the exception of the early cocoons of Kagoshima and Fukushima, and the late cocoons of the Ibaraki and Chiba prefectures, which were a little inferior. The autumn output of yellow cocoons can not be ascertained exactly, but it is probably 50,000 koku (nearly 256,000 bushels), which is only 2.7 per cent of the total autumn cocoon crop.

Indigo in Madras.—The Government sowing report on the indigo crop of 1916-17 in the Madras Presidency, just issued, states that owing to the large profits made last year there has been an important increase in the area under indigo in the current year. Good seed has been generally available, although the prices have ruled very high. The total area now reported for the current year is 344,300 acres. The increase is especially noticeable in Kistna, Guntur, Nellore, and Kurnool, but occurs everywhere. The final forecast report on indigo in 1915-16 placed the area sown in that year in the Madras Presidency at 182,800 acres. Final figures for 1915-16 are not yet to hand for all districts, but it would appear that the area actually cultivated with indigo last year was about 202,000 acres. The season has been generally favorable to the crop so far. On an average of the five years ending 1914-15 the area under indigo in the Madras Presidency has represented 33.4 per cent of the total area under indigo in British India.

Export of Marine Products.—The report of marine products during last year amounted to 30,483,290 yen, an increase of 8,767,316 yen as against 32,315,974 yen for 1915.

COMMERCIAL

Hankow's Trade with United States.—The declared export returns of the Hankow consulate general for the first nine months of 1916 indicate that this was a record period for exports from Hankow to the United States. The total value of the exports increased to $9,482,409, as compared with $6,366,651 for the first nine months of 1915. This is an increase of over 48 per cent. Probably some 15 per cent of this gain can be accounted for by the high rate of exchange that has ranged approximately thus much higher than it was during the same period of 1915, while the remainder represents an increase in the volume of exports to the United States. The American purchases of wood oil increased from a value of $1,000,289 for the first nine months of 1915, to $3,213,788 for the corresponding period of 1916. Buffalo hides increased by £129,030, and this article is a comparatively new export to the United States. Goat skins increased in value by $247,680. The shipments of cowhides decreased by $229,250.

Japan's Textile Industry.—It is reported that Japan's cotton trade with China is on the wane as a result of the abnormal advances in yarn quotations in the Osaka market and that its place is being taken by Indian goods. According to a report published by the Associated Cotton Spinning Companies, and quoted by the Japan Mail, Japan's yarn trade in the closing 10 days of September alone fell off by 3,633½ bales, as compared with the corresponding period of the preceding month. In comparison with the corresponding period of last year the decrease amounts to 6,086 bales. The total volume for the period is 11,476 bales, making the total for the entire month 39,356 bales. The recovery from this loss will be somewhat difficult for the Japanese cotton men, who have to depend upon the United States for their raw material. The mills have still to buy 300,000 bales of cotton, following their purchase of 200,000 bales early this year. Some first-class mills have already laid in part of the required stocks in anticipation of a shortage, but all the second-class mills which have laid in but small stocks of cheaper cotton will be hard hit.

Their apparent loss as the result of the rise in the price of American cotton may be recouped to some extent by mixing Indian goods with their American cotton, but not much of the loss can be made good without transferring part of the increased cost to the shoulders of the buyers. It will thus become still more difficult for them to regain their lost market in China against the invasion of cheap Indian goods. Though full particulars are not yet known, the situation adds interest to the discussion of a plan for the purchase of a cotton mill in Shanghai by certain Japanese cotton magnates. The mill to be bought runs 30,000 spindles and occupies an important position locally.

Hankow Trade Reaches 200,000,000 Taels.—Foreign trade at Hankow for 1916 totalled 201,600,000 taels, of which 16,600,000 yen represented imports from Japan, and 3,800,000, yen exports to Japan, according to a Consular report from Hankow.

Forest Products Exports.—According to investigations by the Japanese Agriculture and Commerce Department, the total export of forest products during 1916 was 51,557,510 yen in value, a gain of 5,908,531 yen over the 35,648,979 yen of the previous year. Details are:—Lumber 22,317,898 yen; camphor 6,287,795 yen: safety matches 16,184,038 yen; matches, 4,929,155 yen; bamboo ware 1,876,564 yen; lacquer ware 1,102,591 yen; and furniture, etc.,1,853,639 yen.

The China Soap and Candle Co., Ltd.—This company has just been registered at Somerset House, with a nominal capital of £600,000 in £1 shares, to carry on the business of soap and candle makers, &c., and to adopt an agreement with Joseph Crosfield and Sons, Ltd., William Gossage and Sons, Ltd., Price's Patent Candle Company, Ltd., and Price's (China), Ltd. The company is a private one. The number of directors (exclusive of managing directors, not being directors) is to be an even number—not less than six nor more than eight. Joseph Crosfield and Sons and William Gossage and Sons (or, if only one of them is a member of the company, then that company alone) may appoint half the directors, and Price's Patent Candle Company, Ltd., and Price's (China), Ltd. (or, if only one of them is a member of the company, then that company alone) may appoint the other half. From the above it may be assumed that the business of Price's (China), Ltd., an offshoot of Price's Patent Candle Company, and the enterprises in China of Joseph Crosfield and Sons and William Gossage and Sons' are to be largely extended under the united control of the three concerns.

China Buying Sugar.—It is reported that the contracts for about 50,000 bales of Japanese sugar have been signed for export to China, of which the Nippon Sugar Refinery Company's lot of 300 bales is said to be at 12 yen per bale. This price is the highest point reached since last summer and it is expected that a new record price will be quoted this summer, as the prospects are all the stronger.

Javanese Rubber Exports.—Exports of rubber from Java during the first eight months of 1915 and 1916, respectively, were 11,153,000 pounds in the first eight months of 1915 and 19,251,500 in the corresponding period of 1916.

Manchurian Bean Crop.—The forecast of the bean harvest in Manchuria for 1916 varies in the several districts, but the aggregate is expected to exceed that of last year by about 15 per cent. The crop of the Liao River region, which is marketed at Newchwang in South Manchuria, is said to exceed the previous year's production by 50 per cent. The increase is due to the absence in 1916 of the usual floods. One of the largest Japanese firms, with an important bean trade throughout Manchuria, states that 1,910,000 tons can be exported from all Manchuria this year; 450,000 tons from the districts adjacent to Harbin and the Chinese Eastern Railway; 400,000 tons from the Changchun-Kungchuli district; 470,000 tons from the Kaiyuan-Teiling region; 80,000 tons from the Liaoliang-Mukden country; and 510,000 tons from the Newchwang district.

French Silk Harvest of 1916.—The silk cocoon harvest of 1916 in France, as estimated by the Lyon Union of Silk Merchants, is 6,147,100 pounds, as compared with 3,808,100 pounds in 1915, an increase of 61.42 per cent.

China's Reclamation Scheme.—The Minister of Agriculture and Commerce, Mr. Ku Chung-hsiu, recently proposed the organization of a regular Reclamation policy, with the establishment of suitable offices and the appointment of a proper staff. Whilst many proposals have been made in connexion with this work nothing has been done because it was too many people's business to attend to it. He recently proposed that the Ministries of Agriculture and Commerce, of Finance and of the Interior, should co-operate in the work. The proposal recommended itself to the Prime Minister who therefore appointed a Commission drawn from the staffs of these three Ministries. This Commission has held several meetings, says the "Peking Daily News," and is making good progress towards the formulation of a practicable and inexpensive scheme.

POPULATION AND IMMIGRATION

Japanese Abroad.—Of the 621,869 Japanese reported to be living abroad, 174,408 are living in North and South America, an increase of 26,534 compared with the figures of the previous year. A classification of the residences and sex of Japanese immigrants follows.

	Males	Females
North and South America	174,408	63,761
Europe and Siberia	3,692	2,524
Manchuria	168,531	141,459
China	15,632	12,138
South Asia and South Seas	18,852	7,881
Military zones	7,174	5,609
Total	388,289	233,363